RETURN:

ROYAL FORESTS.

Ordered, by The House of Commons, *to be Printed,*
7 *March* 1854.

[*Price* 3 *s.*]

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1854. LXVII.

ROYAL FORESTS.

RETURN to an Address of the Honourable The House of Commons, dated 13 February 1854;—*for*,

"COPIES of all CORRESPONDENCE, not already before The House, between the Commissioner in charge of Her Majesty's Woods and Forests, and the Deputy Surveyors of the Royal Forests, in relation to Mr. *Brown*'s Inspection of and REPORTS upon the ROYAL FORESTS, and Proceedings in connection therewith, and of any REPORTS from Mr. *Brown* in answer to the Remarks of the Deputy Surveyors:"

"Of REPORTS of Mr. *John Clutton*, to the Commissioner in charge of Her Majesty's Woods and Forests, on Mr. *James Brown*'s REPORTS on the FORESTS, and of any REPORTS from Mr. *James Brown* in answer to Mr. *Clutton*'s OBSERVATIONS:"

"And, of CORRESPONDENCE between the Lords Commissioners of Her Majesty's Treasury and the Commissioner in charge of Her Majesty's Woods and Forests, on the subject of the Employment of Mr. *Brown* on an Inspection of the Forests; and of a TREASURY MINUTE and subsequent CORRESPONDENCE relating to the Commissioner's Second Annual Report to Parliament."

(*Mr. Drummond.*)

Ordered, by The House of Commons, *to be Printed*,
7 *March* 1854.

CORRESPONDENCE, &c.

RELATING TO THE ROYAL FORESTS, &c.

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Whitehall, Treasury Chambers,
6 March 1854.

JAMES WILSON.

COPIES of all CORRESPONDENCE, not already before The House, between the Commissioner in charge of Her Majesty's Woods and Forests, and the Deputy Surveyors of the Royal Forests, in relation to Mr. *Brown*'s Inspection of and REPORTS upon the ROYAL FORESTS, and Proceedings in connection therewith, and of any REPORTS from Mr. *Brown* in answer to the Remarks of the Deputy Surveyors: of REPORTS of Mr. *John Clutton*, to the Commissioner in charge of Her Majesty's Woods and Forests, on Mr. *James Brown*'s REPORTS on the FORESTS, and of any REPORTS from Mr. *James Brown* in answer to Mr. *Clutton*'s OBSERVATIONS: and, of CORRESPONDENCE between the Lords Commissioners of Her Majesty's Treasury and the Commissioner in charge of Her Majesty's Woods and Forests, on the subject of the Employment of Mr. *Brown* on an Inspection of the Forests; and of a TREASURY MINUTE and subsequent CORRESPONDENCE relating to the Commissioner's Second Annual Report to Parliament.

ROYAL FORESTS.

RELATING TO ANNUAL REPORT TO PARLIAMENT.

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Royal Forests.

Relating to Annual Report to Parliament.

No. 1.

COPY LETTER from the Right Honourable *T. F. Kennedy*, to the Right Honourable the Chancellor of the Exchequer.

Sir, Office of Woods, &c. 20 June, 1853.

I TAKE the liberty of addressing this letter to you, in consequence of observing, on the paper of the House of Commons, two notices of motions for Returns relating to the Office of Woods.

To neither of these motions can I have any objection; on the contrary, I am desirous that every light and information should be afforded on the subject of the affairs of the Department, and on the manner in which the duties are discharged, so far as I am concerned; but I feel that, proper as these motions may be so far as they go, Returns to them will afford very imperfect information and light on the important affairs committed to my care. On this ground, I venture to state that I think it would be highly conducive to the public interest if a searching inquiry were instituted into the whole subject, either by Committee, or Commission, composed of persons in no ways influenced by previous opinion, or pledged to any line of proceeding, either in defence or disapprobation of the present state of affairs, or swayed by personal interests, or influences, which are inconsistent with the public interests. Such an inquiry could not fail to conduce materially to the public benefit; but its efficacy would entirely depend on the exclusion from the Committee, or Commission, of all persons holding preconceived opinions on matters which have created excitement and prejudice, at variance with the real interests of the Crown and the public.

Such an inquiry seems to me to be necessary, not only as respects the difficulties arising out of the want of proper qualifications in a large proportion of the local officers of the forests (which is a subject of a most serious character), but as respects the official establishment in London, where the means at my command, as respects the forests, are not such as to render it possible to transact the business in the manner in which it ought to be conducted. On these two subjects, I should be ready to give all the information in my power; and the most convenient time would probably be, after the usual recess in the summer and autumn.

I am strongly of opinion that the business of a department, such as the Office of Woods, ought to be conducted on the principle of confidence in the head of the office, founded on trustworthiness and responsibility; and that a system of minute control in the practical administration of rural affairs, by the Treasury, in matters of detail, and other than the expenditure of considerable sums of money, cannot fail to paralyze the efficiency of such a department, by suppressing the vigour and exercise of private judgment and intelligence. Such a system of reliance I should think the most safe as regards the interests of the Crown and the public, always under the indispensable check and safeguard of an Annual Report to Parliament, in which ample and precise information should be given. Such information it was my endeavour to give in my last Report, and such it will be my endeavour to give in a forthcoming Report, to be presented before the approaching prorogation of Parliament; but no Report can include the details which ought to be inquired into, in order to secure such an efficient system of administration as ought to exist.

I have, &c.

The Right Honourable the Chancellor of the Exchequer. (signed) *T. F. Kennedy.*

No. 2.

Sir, Treasury Chambers, 4 August, 1853.

I AM directed by the Lords Commissioners of Her Majesty's Treasury to transmit herewith for your information, copy of a minute of this Board, dated 2d instant, in reference to your Annual Report on the Woods, Forests, and Land Revenues of the Crown, forwarded with your letter of the 22d ultimo.

I am, &c.

The Right Hon. T. F. Kennedy. (signed) *James Wilson.*

TREASURY MINUTE, dated 2d of August, 1853.

READ a letter from Mr. Kennedy, dated the 22d instant, transmitting his Annual Report on the Woods and Royal Forests, and on the Land Revenue of Scotland and Ireland, for the year ended 31st March, 1853, in order that it may be presented to both Houses of Parliament.

In his letter, Mr. Kennedy states that, although he used all diligence in the present year to fulfil the requirements of the law, that the Report should be made within three calendar months

months after the 31st day of March, he has not found it possible to do so; and he requests that, under these circumstances, the Report now transmitted may be forthwith presented to both Houses of Parliament.

He assigns, however, no reason for the delay; and, as it is necessary that my Lords should make themselves acquainted with the contents of any document which they are required to lay before Parliament, they were obliged to devote some days to the consideration of this voluminous paper before they took any steps on the subject. This consideration was the more necessary, because the constitution of the Department of Woods and Land Revenues has been changed since the enactment which requires that these reports should be presented to Parliament by the Commissioners of Woods, &c.

The Department was then represented by a Minister of the Crown in Parliament, who was responsible for the proceedings of the Board of which he was the head, and who was enabled to lay before Parliament any papers that might be required.

Under the present arrangement, the duty of presenting to Parliament papers prepared in the Office of Woods devolves upon the Treasury; but, although the Commissioners are placed more immediately under the control of this Board, which control might be construed to include the superintendence of the preparation of documents for Parliament, the enactment in question, which requires a joint annual report from the Commissioners, can now only be complied with by reports from each Commissioner of his individual responsibility; and a duty is thus imposed upon them, in the exercise of which they may claim, in one sense, independence of this Board; while, in another sense, some responsibility would seem to attach to their Lordships in regard to the character of the reports which they may be called upon to lay before Parliament.

In ordinary cases, these contradictory requirements need occasion no practical inconvenience, for, on the one hand, it can never be the desire of this Board to withhold from Parliament any information essential to an exercise of sound judgment on the proceedings of the Commissioners of Woods; and they would, on the other hand, expect some deference on the part of the Commissioners to opinions entertained by their Lordships regarding the mode in which information should be conveyed, or in regard to any defects which they might think it desirable to supply. It cannot have been in contemplation of Parliament, when the establishment of the Woods and Forests Department was recently revised, with the view of placing it under the same description of control which was exercised by this Board over other revenue departments, that, in a matter which regards communication to Parliament on the part of a department of Her Majesty's Government, the responsibility should rest with a single functionary, whose office precludes him from sitting in the House of Commons.

When my Lords perused Mr. Kennedy's Report, they found in it some inaccuracies, and much detail of communications between him and officers acting under him, which, without feeling any desire to shield those officers from imputations or consequences to which their conduct may fairly expose them, appears to them of too trivial a character for the attention of Parliament, and the publication of which they do not think altogether becoming in a public department already armed with extensive powers over their subordinate officers.

The Commissioners of Woods have, in the right of removal which is vested in them, a powerful resource for enforcing discipline in their establishment, and their Lordships feel that communications to Parliament of the character referred to, could only be called for in cases in which the powers possessed by the Commissioners could be shown to be inadequate for the proper fulfilment of their responsibilities. My Lords considered the Report also objectionable in other matters, to which they will presently advert.

Entertaining these views, their Lordships thought that the most courteous mode of proceeding, and altogether the most satisfactory to Mr. Kennedy, would be, to communicate to him verbally, through their secretary, the objections to some parts of his Report, which they entertained; and they had hoped that, as the suggestions conveyed to him on the subject would have entailed no sacrifice of principle, and were proposed solely to promote the future harmonious working of the department under his charge, he would have been disposed to modify the terms of his communication.

My Lords regret, however, to find from a report from Mr. Wilson that, after hearing the opinion entertained by their Lordships of the inconvenience, if not injury, to the public service, which is likely to result from the line of observation which has been adopted in this Report, Mr. Kennedy declines to alter it in any particular (with the single exception of the addition of a Treasury Letter to the Appendix, which was necessary to complete the correspondence respecting Hainault allotment, and which he states to have been unintentionally omitted), and requires that the Report should be presented in its present shape on his own responsibility.

My Lords feel that, under these circumstances, they have no alternative but to present the Report to Parliament; and, although it would have been open to them to present it with a statement correcting the errors into which they conceive Mr. Kennedy has fallen, they are desirous of avoiding the publication on their part of any statements of a controversial tendency, while the important question of the future management of the Royal Forests is still under their consideration, and the materials for a decision upon which are still incomplete. They will, therefore, for the present, content themselves with putting on record the opinions they have formed on the subject.

The objections entertained by my Lords to Mr. Kennedy's Report are confined to that portion of it which relates to the Royal Forests and Woodlands; and they will, in the first instance, refer to some of the passages which have attracted their attention.

The first relates to the expenditure which is to be incurred in fencing and making roads

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and drains in the Crown allotment of Hainault, on which subject Mr. Kennedy has made observations which appear to my Lords to be unsupported by facts, reflecting on the course of proceeding proposed by Messrs. Clutton & Driver, the adoption of which has been recently sanctioned by this Board. Mr. Kennedy observes, that "he considered Messrs. Clutton & Driver's estimate to be very large," and refers, in a subsequent paragraph, to a letter addressed by him to the Commissioner in charge of the Land Revenue, on the 27th April, "with reference to a contractor who he thought might have been advantageously employed on the works in Hainault Forest, and who he had reason to believe might be disposed to execute them at prices lower than those estimated by Messrs. Clutton & Driver."

My Lords do not find in the letter in question any justification of this statement. It appears that he had addressed a letter to Mr. J. Barr, of Ardrossan, in the county of Ayr, suggesting Hainault Forest as a locality worthy of his attention; who, in reply, had expressed his intention of visiting Hainault Forest, in company with his brother, "with a view possibly of tendering for the works when public tenders should be called for." But nothing appears from which it can be inferred that Mr. Kennedy had reason to suppose that the works would be executed at prices lower than the estimate.

The subject of these works had, however, previously been brought under the consideration of this Board in a report from Mr. Kennedy, dated 28th January, 1853, in which he expressed dissatisfaction with the estimates prepared by Messrs. Clutton & Driver, stating his opinion that, in Scotland, the work could be executed for one-third less than the estimate, and recommending that he should be authorized to apply for the aid of Mr. Caird, or, if his services could not be obtained, for those of another professional gentleman from Scotland. In this report, Mr. Kennedy particularly adverted to the manner in which it was proposed to construct the fences, which he represented to be objectionable, and on this ground, more even than on the ground of expense, he urged the adoption of his proposal.

This communication was made in apparent forgetfulness of proceedings which Mr. Kennedy had previously authorized.

The total amount of the estimate which he so strongly objected to was 8,565 *l.* 4 *s.*, of which 4,128 *l.* 6 *s.* was for fencing; 2,826 *l.* 18 *s.* 9 *d.* for roads; and 1,609 *l.* 19 *s.* 3 *d.* for drains. My Lords learnt, by communication from Mr. Gore, of the 29th June, 1853, referring to the above-mentioned letter of Mr. Kennedy, that, on the 7th September preceding, he (Mr. Kennedy) had authorized Messrs. Clutton & Driver to accept a tender for the erection of the part of the fencing which consisted of post and rails, at the rate of 3 *s.* per rod, the form of fencing to be adopted being prescribed in the same communication, and the whole placed under the superintendence of Mr. M'Cletchie, a person selected by Mr. Kennedy. By a subsequent letter, dated 8th October, he had authorized the necessary steps for obtaining a proper supply of spruce fir, for making the top rail of the proposed fencing.

It thus appears that, at the time when Mr. Kennedy addressed a complaint to this Board regarding the amount of expenditure proposed to be incurred, and regarding the description of work recommended, he had already authorized proceedings involving an expenditure amounting to nearly half the estimate, and that the part of the plan to which, in the report in question, he stated his objection as a main reason for his desire to obtain further professional advice, involved only a very small portion of the expenditure.

The arrangements for the fences having been completed with the exception of the comparatively small matter of the planting of quicks, the plans which remained for consideration were those for the construction of the roads and drains.

Mr. Gore took the judicious step of referring this part of the estimate to the Commissioners of Metropolitan Roads, who, having the superintendence of roads in the immediate neighbourhood, were well qualified to offer an opinion upon the plans proposed; and my Lords have since authorized invitations for tenders for these works to be inserted not only in English but Scotch newspapers, a course which will secure any advantage which could be derived from Mr. Kennedy's proposal, without incurring the additional expense of a second survey and report.

My Lords regret to be obliged to enter into these details, in consequence of Mr. Kennedy's refusal to correct an obvious error, which, however, it is necessary to notice to prevent an imputation, that the public interests have been neglected on the part of the Commissioner to whom the management of this property is now entrusted, in not following the course recommended by Mr. Kennedy in this matter.

The next part of the Report refers to Chopwell Woods. My Lords have no objections to offer to Mr. Kennedy's observations in regard to the proceedings on this subject; but they feel it right to remark on the allusion made by him to the terms upon which the services of William Thomson have been engaged, upon the tenure of the satisfactory performance of his duties. Mr. Kennedy refers to this in the light of a new principle, the adoption of which he recommends in the case of all other appointments in the forests. My Lords are not, however, aware that any officer in the public service holds his appointment on other terms than the satisfactory performance of his duties; and Mr. Kennedy himself recognises the existence of this principle in the case of Mr. Lipscomb, the deputy-surveyor of Delamere Forest; and which has already been acted upon in the case of the removal of Mr. Thomson's immediate predecessor.

In reference to the case adverted to, relating to the deputy-surveyor of Delamere Forest, one of the passages occurs to which my Lords have alluded, as constituting an objectionable feature of the Report.

It appears from the Report itself, and the correspondence referred to in it, that estimates of income

income and expenditure in respect of Delamere Forest had been framed both by Mr. Brown, under Mr. Kennedy's direction, and by Mr. Lipscomb. The former offered more favourable results than the latter; and Mr. Lipscomb was directed to adopt them, but failed to realize the expectations which Mr. Kennedy had formed on the subject. In the correspondence, Mr. Lipscomb states his reasons why he had not been able to accomplish the anticipated results; and his last letter expresses an opinion, founded on his local experience, that the estimates of Mr. Brown could not be realized. My Lords are bound to conclude that Mr. Kennedy has grounds other than those which appear on the face of the correspondence, for the strong opinions he has formed, that the failure of this officer to fulfil his instructions arises from want of knowledge and energy; but, so far as the correspondence goes, the comments of Mr. Brown upon his reports appear to be founded, in a great measure, on conjectural data; and, whether Mr. Lipscomb is competent to form a sound judgment on the subject or not, upon which my Lords offer no opinion, he did no more than his duty in representing to Mr. Kennedy the doubts which he entertained of the practicability of fulfilling his instructions. He has done so in a respectful though firm manner: and my Lords can find in this correspondence nothing of that flippancy and want of respect to his superiors which Mr. Kennedy attributes to this officer.

There cannot be a greater mistake in the conduct of the business of a great establishment than to check, by an exercise of authority, the expression of conscientious opinion on the part of those upon whose co-operation and judgment it is necessary to rely, in regard to any measures they are called upon to effect, and it is no less for the advantage of the public service than just to the officers themselves who may be placed in situations of responsibility, however subordinate, that they should be allowed the exercise of this privilege within reasonable limits.

In the portions of the Report which relate to Dean Forest and New Forest, Mr. Kennedy has referred to correspondence with the deputy-surveyors, Mr. Machen and Mr. Cumberbatch, upon matters in which he considers their management censurable. My Lords regret that Mr. Kennedy has thought it necessary to enter so largely into these details. They refer to proceedings which, even if it be admitted that Mr. Kennedy's views are strictly correct, do not much affect the general reputation of these officers for efficiency, and it cannot but have an injurious effect on the public service, and tend to check zeal on the part of subordinate functionaries, if they find that every step in which they may differ from their superiors, or fail to fulfil his expectations, is held up to public comment without an opportunity of defence on their part, and without any credit being given to them for services which entitle them to commendation. My Lords particularly regret the adoption of this course in the case of Mr. Machen, an old officer of great respectability, to whose judgment and exertions (coupled with the influence which his high character enabled him to exert over a wild mining population) the present value of the Crown property in Dean Forest is mainly due, whatever improvements may still be attainable on the management of the plantations.

In the case of Parkhurst Forest, a report of Mr. Brown is referred to, as showing that its management heretofore has been by no means of a satisfactory character. My Lords consider this statement to carry an unfair inference in regard to the existing deputy-surveyor, Sir James Campbell, because it appears to attribute the mismanagement complained of, to him; whereas, as Mr. Kennedy must be aware, Sir James Campbell was appointed to the charge of this Forest so recently as November 1848; and, in his evidence before the Select Committee of the House of Commons, in the following year, he expressed a similar opinion on those defects of previous management, viz., want of thinning and drainage, which Mr. Brown details in his report. It would have been satisfactory if in this, and indeed in many other cases, Mr. Kennedy had, in the first instance, ascertained the views of the local officers, and shown that they were defective, before he delegated authority to Mr. Brown to supersede them. My Lords observe that, in the report upon this Forest, that gentleman goes beyond the limits of a professional opinion on the mismanagement, and recommends, in effect, the abolition of the office of deputy-surveyor. My Lords think it injudicious in Mr. Kennedy to have put forward such a recommendation, without having made himself acquainted with the circumstances of the Forest, by personal inquiry on the spot, and without a reference to the deputy-surveyor for a report respecting his duties.

My Lords have postponed to this part of their minute, the observations which they feel it to be their duty to make with respect to the employment of Mr. Brown in the management of the concerns of the Royal Forests.

This subject has been already under the consideration of this Board, in reference to the question of incidental payments of the Woods Department without their Lordships' previous sanction. The remarks which their Lordships made on this subject, by their letter of the 15th of April last, drew forth an elaborate report from Mr. Kennedy, dated the 23d April (though not forwarded to this Board until the 28th May), in which he attempted to justify his proceedings in employing Mr. Brown without the previous sanction of the Treasury; and my Lords replied to this report by Mr. Wilson's letter of the 10th of June, in which their opinions on the subject were very fully stated.

"This correspondence is not annexed to Mr. Kennedy's Report, probably on the ground "that it was not concluded until after the lapse of two months from the period to which the "Report professes to refer." It is impossible, however, not to perceive that many of the observations contained in the Report have reference to that correspondence, and that throughout there is a reiteration of Mr. Kennedy's justification of his proceedings, in opposition to the views entertained by this Board.

As Mr. Kennedy has delayed his Report to Parliament to so late a date, and has evidently framed

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framed it with reference to proceedings which have occurred subsequently to the period to which he professes to refer, it seems to my Lords that it would have been a better course to have laid before Parliament the whole of the correspondence which had occurred up to the date at which it was prepared, including the reports of Mr. Clutton on the subject of Mr. Brown's reports on Dean and New Forests. Their Lordships, indeed, think it would be better to confine these reports, as much as possible, to the actual transactions of the years to which they refer; but if subjects are introduced, which are still under consideration, it is but right that Parliament should be informed of the actual position of the circumstances referred to, and should not be led to form conclusions from partial communications.

In addition to the reasons which Mr. Kennedy had previously assigned for not communicating with the Treasury before he employed Mr. Brown on this service, he alleges, in the part of the Report which relates to Dean Forest, that "it was impossible to procure an "authority from the Treasury to employ Mr. Brown at the period which he thought indis-"pensable, such was the pressure of business on the approaching close of the Session of "Parliament."

My Lords are unable to understand the force of this observation, or to admit its applicability.

They learnt from the Report of Mr. Kennedy of the 23d April, above referred to, that, before he quitted Dean Forest in June last, "he wrote to Mr. Brown, knowing the number of his engagements, to ascertain whether he could give three weeks of his time in Dean Forest in the month of July." After receiving Mr. Brown's reply, he wrote to him detailed instructions dated the 28th June. It is evident that, during this interval, he might have apprised the Treasury of his proceedings. It is not alleged that he made the slightest attempt to draw their Lordships' attention to the subject, and he is not justified in assuming that the pressure of Parliamentary business would have prevented them from attending to it, if he had done so.

Mr. Kennedy had, indeed, previously employed Mr. Brown on inspections of Chopwell Woods and Delamere Forest without the previous sanction of the Treasury. In the former case, the proceeding was excused on the ground that, on account of the climate, he felt it desirable to obtain the advice of some person conversant with forestal management in the northern climates, or even in Scotland; but, in the latter case, an entirely new system was first commenced in the management of the Royal forests, and the plea Mr. Kennedy now urges regarding the importance of the measures, and the deep responsibility which attached to him, raises a fair presumption that he was fully aware of the unusual character of the proceedings which he was adopting, without regard to the control which Parliament has vested in this Board over the conduct of the business of the Woods and Forests Department.

It cannot be doubted that, if Mr. Kennedy had represented to their Lordships his desire to obtain the professional advice of Mr. Brown, they would, on being satisfied regarding the grounds on which he considered such a course necessary, have readily acceded to his proposition under proper instructions. But my Lords would have objected, as they now do, to the mode in which he has employed this gentleman in controlling, or superseding, the functions of the local officers. It may be, that the management of the Royal forests has hitherto been as defective as Mr. Kennedy represents it to be, and if so, a fundamental change of the system would not only be warranted, but be absolutely necessary. Such a change, however, should be the result of deliberate, open, and unprejudiced investigation. The property is too valuable to be made the subject of rash experiments.

From the mode in which Mr. Kennedy has employed Mr. Brown, he has placed him in antagonism with the deputy-surveyors, and has paralyzed their exertions, without obtaining the advantages which might have been hoped for, from the advice and co-operation of a gentleman of his high professional reputation. So long as those officers are left in the nominal charge of the forests entrusted to their management, some consideration is due to their opinions; and it is vain to hope that they can give zealous and useful service if they are subject to the control of an irresponsible adviser; and if, as has been the case in Dean Forest, the inferior officers of the forest are allowed to look to Mr. Brown for instructions, instead of to their responsible head. It is to be feared, too, that, from the same cause, the reports of Mr. Brown may be found, notwithstanding their ability, to be defective, from a want of local information, which he might have obtained if he had been placed in open and cordial communication with the officers of the forests.

My Lords make these observations without prejudice to the recommendations of Mr. Brown, which are under investigation, and which will receive anxious, deliberate, and unprejudiced consideration, notwithstanding the difficulties with which the irregular course of proceedings, already adverted to, has unnecessarily beset the question. Their Lordships, however, cannot conceal from themselves that, from the position it has assumed, the attainment of any middle course will be very difficult. Mr. Kennedy has set his own knowledge and judgment with regard to technical details of management in opposition to the opinions of those professional men who have gained their reputation in the management of oak-plantations in the south of England, and who have the advantage of local experience. He may, as my Lords have observed, be correct in those views; but they involve changes which are of a most important character, and it is the duty of their Lordships fully to satisfy themselves of the merits of the system which he advocates before they decide upon propositions which, if not sound, would entail an incalculable amount of injury on the Royal property.

My

My Lords will proceed in the course which they have already indicated, in the hope of arriving at a satisfactory solution of the question which is before them; and they only regret that they have been compelled to make the foregoing observations, pending the consideration of a subject, in regard to which it is their desire to reserve the expression of any opinion.

No. 3.

Dalquharran Castle, County of Ayr,
25 August, 1853.

Sir,

It is with the utmost reluctance that I again address a letter to you on the subject of my official affairs as a Commissioner of Woods, but a minute of severe censure on my conduct having been recently issued by the Lords Commissioners of Her Majesty's Treasury in reference to my Annual Report recently presented to Parliament, I am desirous of placing in your hands a copy of a letter which, from a sense of what is due to myself, I have been compelled to write in reply.

I consider that, in reporting to the Queen and to Parliament, as required by statute, I exercise the highest and most responsible function of my office, and nothing would induce me to suppress that which I may think it important to the interests of the Crown and of the public that I should state, yet I am reprimanded for doing what I consider in this respect to be my duty.

I beg leave to request your attention to my Special Report, presented to Parliament on the 22d of June, 1852, as regards my duty in reporting to the Queen and to both Houses of Parliament.

I will abstain from all repetition of what I have endeavoured to state correctly in the letter of which I annex a copy for your information, but I presume to claim justice at your hands, and in your character I place entire confidence that I shall receive it.

I have endeavoured to do my duty zealously, and I have received a reprimand such as I should suppose to be of rare occurrence as applied to a public officer of character, station, and some experience. I am the responsible officer to the Crown, to Parliament, and to the public, for the performance of my duty; and I can accept and bear such a responsibility only on the condition of an honest, fearless, and uncompromising discharge of that duty.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Hon.
The Chancellor of the Exchequer.

No. 4.

Dalquharran Castle, County of Ayr,
25 August, 1853.

My Lords,

I have the honour to acknowledge the receipt of Mr. Wilson's letter of the 4th of August, transmitting for my information copy of a minute of your Lordships' Board, dated the 2d of August, on the subject of my Annual Report recently presented to Parliament.

I deeply regret to find that your Lordships should have thought it proper to issue a minute of so grave and serious a character as affecting the performance of my public duties; and, if I felt that the spirit of severe censure in which that minute is framed was in any way deserved, or borne out, by the facts and circumstances of the case, when correctly apprehended, I should indeed be dissatisfied with my own conduct; but I feel that I have only endeavoured, to the best of my ability, to discharge my duty, and I cannot consent to compromise that duty, which is alike due to the Crown and to the public. I can desire nothing so much as to avoid all controversial discussion with your Lordships; but I cannot submit in silence to censure, which I consider to be wholly unmerited. I must presume to explain, and when need be, to justify myself, especially when the censure relates to the independent exercise of the highest and most responsible function of an office (held by patent under the Great Seal), viz., that of reporting faithfully and fearlessly to "The Queen's most Excellent Majesty, and to both Houses of Parliament," as required by law.

Your Lordships' minute embraces a very wide field as regards matters of fact, and of reasoning and inference, founded on facts, as they are apprehended by your Lordships: and, if I were to make a statement as full as the case would seem to require, I should go into a length of statement which I am most desirous to avoid, and therefore I will content myself with adverting only to the most material points, reserving to myself the full liberty of future statement and explanation, if circumstances shall occur to require it.

1. Your Lordships are pleased to state that I assign no reason for the delay in presenting my Report beyond the 30th of June to the 22d of July; one main reason was, the great labour of preparing it, which is by no means visible on the face of such a document when completed, and the mass of details to be dealt with was very large. The mere labour of copying could not be sooner completed; two gentlemen in the office, out of three in the Forest branch, were absent from dangerous illness: and, in addition to the assistance which I was obliged to take, I was myself compelled individually to perform very laborious duties, which ought to have been performed by others. The merely arithmetical statements and

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calculations could not be completed a day sooner than they were; besides, your Lordships are aware that the voluminous accounts which must be attached to the Report relating to both branches of the office, could not be completed at the time the Report was presented to Parliament; and, accordingly, they could not be, and were not, presented to Parliament, as they ought to be, with the Report; and I have not yet been informed that they are even now ready for my signature, without which, they cannot be presented to Parliament. I do not make this statement as matter of blame to any one; on the contrary, I believe the fact has been unavoidable, and I merely state it as matter of fact. If, therefore, it was impossible for me to complete my Report until after the 30th of June, it has been equally impossible to complete, in both branches of the office, a very important portion of the Report at a later period.

2. I forbear to make any observations on that portion of the minute which relates to the general character of my Report, further than that I am the officer responsible to the Crown, to Parliament, and to the public, for the performance of the duties incident to the office which I hold, and that it is impossible I can submit to such responsibility, if I am not to be, to a great extent, unfettered in the exercise of my judgment and discretion in practical matters, which I should suppose it to be difficult for your Lordships to understand in detail. I have felt it to be indispensable, and no more than the performance of my duty, to embrace in my Report such statements as shall show the extreme difficulties by which I am encompassed in the satisfactory administration of the Royal forests and woodlands, and it gives me satisfaction to find that your Lordships' objections are confined to that portion of the Report which relates to the Royal forests and woodlands.

3. Your Lordships have been pleased to impute error to me in my statements respecting expenditure to be incurred in Hainault Forest, and a persistence in such error when pointed out, alleging, as regards me, "a refusal to correct an obvious error" when pointed out. I beg leave to state (as I did at once in conversation with Mr. Wilson, on the 28th of July,) that I cannot admit the existence of the error, and, consequently, it was quite out of my power to correct it. Your Lordships have, in my humble apprehension, been led into the error which I am supposed to have committed. Your Lordships have been led to suppose that I was precluded from objecting to the amount of Messrs. Clutton & Driver's estimates, by reason of having myself previously authorized a large proportion of the expenditure, which I subsequently hesitated, without further information, to recommend for your Lordships' sanction. I beg leave to state that this view of the case is wholly at variance with the facts on which this discussion is founded, and I annex copies of the material part of the correspondence with Messrs. Clutton & Driver, which go to prove that the facts and circumstances are the very reverse of what your Lordships have been led to apprehend, and, consequently, that the charge brought against me is wholly unfounded.

From these papers, it appears that, so far from my having sanctioned any part of the expenditure to which I subsequently objected, my sanction was most scrupulously confined to the preparation of certain timber, and the purchase of a little more. Every one at all practically acquainted with rural affairs knows, that whatever form or fashion of fencing is adopted, wood is required for paling to protect the hedge until it shall arrive at maturity, and I unquestionably sanctioned the preparation of such wood; but I expressly did not sanction its erection, thereby expressly reserving the question of the kind of paling to be erected (according as the wood should turn out to be most suitable for one kind or another), and I did not decide to sanction the construction, or fashion, of thorn-fence to be adopted. My objection had no relation to the preparation of the wood, but related to the items of expenditure, other than and excepting the preparation of the wood, which could not be dispensed with under any estimates which might eventually be sanctioned. My objections, or doubts (for, I asked only for further information to confirm or negative my opinion), as the case might be, related to,

1st. The earthwork of the fences; to their form, as affecting the planting of the quicks on the top of an artificial mound, instead of on the surface of the soil, with a small mound above them.

2d. The roads, which were estimated, as I believe, to cost about 640*l.* per mile, while I conceived that they might probably be executed at about 400*l.* per mile, or even at a lower sum; and I know no reason why I should not permit my own experience to guide my opinion on such a subject of common occurrence in the management of landed property.

3d. The ditches, which I thought were estimated at a large sum, but as to which I could form no certain opinion, and therefore desired to seek the opinion of a third party.

On these grounds I presume to say, that I had given no sanction whatever which could preclude me from stating, or which was inconsistent with, the objection which I did state to the rates of expenditure contemplated by Messrs. Clutton & Driver. The papers annexed disprove the charge, that I did authorize Messrs. Clutton & Driver "to accept a tender for the erection" of a part of the fencing, and prove incontestably that I did distinctly reserve that matter for the previous sanction of your Lordships.

4. With respect to now advertising for tenders in the Scotch newspapers, as an equivalent for the proceeding which I recommended, I can entertain no doubt that such advertisements will be wholly unavailing, and are not at all likely to produce tenders. I never expected to succeed in the scheme I contemplated, except by personally endeavouring to induce some competent party to look at the work wanted, it being very unlikely that a Scotch contractor should

should migrate into Essex on a mere advertisement; and unless invited by some one with whom he had a previous acquaintance, and in whom he had confidence, I venture to predict that the advertisements issued will be unavailing.

5. Your Lordships advert to my statement as to the terms upon which William Thomson has recently been engaged as superintendent of Chopwell Woods, and object to my considering that he has been engaged on a new principle, stating that all the officers hold their offices on the tenure of the satisfactory performance of their duties, and that I myself recognise this fact by the recent removal of William Thomson's predecessor. I entirely concur in your Lordships' opinion, that all officers can be removed in consequence of an unsatisfactory performance of their duties, but I still venture to think that a new principle has been introduced, which has been practically illustrated by the example of Mr. Prettyjohn and Mr. Thomson. Mr. Prettyjohn was removed because he did not perform his duties in a satisfactory manner; but I never thought that he could be removed, even on that ground, without giving him some retiring allowance; and, accordingly, a handsome retiring allowance has been granted to him by your Lordships. If, on the contrary, William Thomson were removed on similar grounds, three, five, ten, or even twenty years hence, he would be entitled to no retiring allowance whatever, and the distinction between these two individuals in this respect is the illustration of the new principle which I have introduced, and which I venture to think is of the highest importance to the public service. In confirmation of this statement, I may add, that Mr. Prettyjohn held his office under a formal deed of appointment, whereas, in Mr. Thomson's case, such deed is dispensed with, I being authorized by a letter from Mr. Wilson to dispense with such formal deed of appointment, under the special circumstances of Mr. Thomson's employment, Mr. Wilson thereby recognising the distinction to which I have adverted in my Report.

6. Your Lordships advert to my opinions respecting Mr. Lipscomb, and conclude that I must have other grounds than those which appear in the correspondence as their foundation. Undoubtedly, my visit to Delamere Forest, in July 1852, was the basis of my opinion; it was on that occasion I formed the strong opinions I entertain; and, while there is nothing to complain of, in the mere form of the subsequent correspondence, its substance was highly unsatisfactory, and certainly had no tendency to remove the impressions which I had personally received. It indicated no disposition, on Mr. Lipscomb's part, to alter his accustomed habits, and to conform to the wishes of the Commissioner, whose duty it was to see that Delamere Forest was managed in a satisfactory manner.

Your Lordships are pleased to remark, that "there cannot be a greater mistake in the conduct of the business of a great establishment than to check, by an exercise of authority, "the expression of conscientious opinions on the part of those upon whose co-operation and "judgment it is necessary to rely, in regard to any measures they are called upon to effect; "and it is no less for the advantage of the public service than just to the officers themselves, "who may be placed in situations of responsibility, however subordinate, that they should "be allowed the exercise of this privilege within reasonable limits."

I must take the liberty of saying that I am at a loss to understand upon what ground my conduct should be liable to this criticism, inasmuch as my character, conduct, and habits are altogether opposed to the principle which is objected to. I am inavariably most willing and desirous of hearing and having the benefit of the opinion of others; but if, on mature consideration, I am satisfied that they are mistaken, I cannot consent to be governed by them, especially where, upon important matters, I am the party responsible. Your Lordships' criticism appears to me to proceed upon an assumption of fact which, so far as I am conscious, has no foundation.

7. I forbear to make any observations on the great subjects of Dean Forest and New Forest, except to state that I should have been much satisfied if I had thought that I could, with propriety, have introduced into my Report the more recent reports of Messrs. Clutton and Brown; but I did think that it might be considered too great a deviation so to do, from the principle upon which the annual reports are framed. In the case of Hainault, I departed from the principle, in order to exhaust and conclude the subject, with which I ceased to be concerned henceforth, and the documents of latest date were in the month of May, whereas Mr. Brown's last report on Dean Forest is dated the 5th of July.

8. With respect to Parkhurst Forest, your Lordships are pleased to consider that my observations carry an unfair inference respecting Sir James Campbell.

I beg leave to observe, that I merely dealt with facts. I placed Sir James Campbell in communication with Mr. Brown, and I requested Mr. Brown to give me his opinion, and on that opinion I have as yet acted in no particular, not having yet called on Sir James Campbell even to consider Mr. Brown's suggestions, for the reasons stated in my Report, leaving him, up to this time, unfettered to pursue his own course. I am aware of Sir James Campbell's evidence in 1849, and that it coincides, in some measure, with the opinions of Mr. Brown; but that being the case, it is perhaps the more remarkable that, from 1849 to 1853, Sir James Campbell should not have acted on the opinions which, in 1849, he entertained and expressed, and in order to act on which, he stated, he did not think that he required the previous sanction of the Commissioners of Woods. In his own opinion, he was, therefore, free to exercise his judgment to a considerable extent: and if, as your Lordships state, his statement was very much the same as that of Mr. Brown, there can be no eventual unfairness towards him if I shall call upon him, which I have not yet done, to act upon opinions the same or similar to those which your Lordships state that he expressed in 1849,

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but which have not been acted upon by him, even in 1853. The material part of his evidence is as follows:—

In what state, did you find Parkhurst when you were appointed to it?—I did not think it had been thinned enough; and, in some parts, the trees did not grow very kindly; in some parts, they do grow very well.

You thought that it had not been sufficiently thinned?—No, nor sufficiently drained.

Did you represent the fact to the Commissioners of Woods?—I did not; it is not necessary, I believe, to do so.

It would be left to you, to remedy that?—Yes.

Have you any recommendation to make to the Committee with respect to Parkhurst?—No.

It thus appears that Sir James Campbell had no improvement to suggest in 1849, and has not made any in 1853; and it certainly did appear to me necessary to consider, whether some improvement could not be made, and I therefore consulted Mr. Brown, who, it appears, holds opinions somewhat in unison with opinions entertained by Sir James Campbell four years ago, but to which he has not given practical effect.

In another part of the minute, your Lordships are pleased to say, in reference to my employment of Mr. Brown, that "It cannot be doubted that, if Mr. Kennedy had represented "to their Lordships his desire to obtain the professional advice of Mr. Brown, they would, "on being satisfied regarding the grounds on which he considered such a course necessary, "have readily acceded to his proposition, under proper instructions. But my Lords would "have objected, as they now do, to the mode in which he has employed this gentleman in "controlling or superseding the functions of the local officers."

In reference to this statement I am, in justice to myself, compelled to speak as I undoubtedly feel, because, if I were unable to make any reply, it would be a grave charge against me. I am unable to understand how, on this subject, your Lordships should be enabled to know exactly what would have been the opinions of your predecessors in office; and, if I am to judge from present opinions, it seems at least doubtful if the sanction of the Treasury would have been given. I have been informed, in a previous communication from Mr. Wilson, to the effect that no grounds whatever existed for such a special inspection of the forests as I employed Mr. Brown to make; at least, so far as my memory serves me, this is the substance of a previous letter on this subject to which I have not the means of referring, being absent in the country. Thus, it would seem that I should not probably have succeeded in procuring the sanction of your Lordships for the employment of Mr. Brown, and certainly not without a very elaborate statement of the grounds on which I sought it. I must, however, frankly say, that I had not the remotest wish to avoid seeking your Lordships' sanction, but the necessity for doing so never entered into my mind; and the grounds on which I did not think such sanction necessary, I endeavoured to state in the report which was sent to your Lordships on the 28th of May. I thought that I could not too zealously seek to effect improvements in the forests, and that the Treasury could only have the same wishes as myself on such a subject. Your Lordships state that, if applied to, you would have objected, as you now do, to the mode in which I employed Mr. Brown in controlling, or superseding, the functions of the local officers. I must take the liberty of saying that I am unable to understand the application of this observation to the facts of the case, as I am altogether unconscious of having given the semblance of authority to Mr. Brown to control, or supersede. No act or word of mine can, in my apprehension, warrant such a conclusion; neither by my written authorities nor personal communications did I ever contemplate such delegated authority. I instructed Mr. Brown to inspect and to report; and he did so, accordingly. In some cases, I acted on his recommendations; in many more, I have as yet taken no steps; but I am not aware of any case in which he either controlled, or superseded; and, on the contrary, I believe that in every case where any step was taken, my special authority was interposed. I feel certain that Mr. Brown would confirm this statement, and I cannot allow it to be put upon record without putting equally on record a disclaimer of, and dissent from, its just application to any act of mine of which I am conscious.

In the outset of the observations which I have felt myself to be under the necessity of making, I stated that I should refrain from making so lengthened a statement as would seem to be called for by the tenor of your Lordships' minute; and I have felt as, I proceeded, that there were strong inducements to deviate from this intention, inasmuch as blame is stated, or implied, throughout the whole extent of that minute; but I have endeavoured to abbreviate my statement, and hope that I may receive some credit for a desire to avoid unpleasant discussion farther than I consider to be absolutely due to myself, and that with as little delay as may be. I cannot admit the justice of many remarks which have been embodied in your Lordships' minute, and I must take the liberty of stating that, while I abstain from further detail, I do not profess to have adverted to all the points which require observation; and I must reserve to myself the full right of vindication.

I have this request to make to your Lordships that, in any use which may be made of your Lordships' minute, the same use may be made of this letter; and, if the minute be submitted for consideration in any quarter, I must request that it may be accompanied by this letter; and, if necessary, that I may have an opportunity afforded to me of further statement and explanation by oral examination.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Hon.
The Lords Commissioners of Her Majesty's Treasury.

(No. 1.)

HAINAULT FOREST.

Sir, Whitehall, 14 August, 1852.

IN obedience with the instructions contained in that part of your letter of the 19th of May last, having reference to the fencing, we have been in communication with Mr. M'Cletchie as to the fence to be erected to include the allotment in the King's Woods, proposed to be set out to the Crown; we have viewed the fence erected around the bark-stacks proposed by Mr. M'Cletchie, and we have received from him a statement of the probable cost of executing the necessary work in the erection of such fence, and the quantity of timber actually required for the same. By this, it would appear that four feet of timber will be required for a rod of fencing; but, in the preparation of this quantity, much offal must arise, and he further estimates that the cost of the work will be 3*s.* per rod.

For this fence, it will be essential that the timber should be straight and free from knots, consequently, the crooked timber and rough tops would be rejected, and be of little more value than for fire-wood.

The other fence proposed is, as you are aware, a post and three-rail fence. This will require rather less timber per rod than the other, and we have a person ready to prepare and execute this at a cost of 3*s.* per rod.

The essential difference in the two fences is, that for the first-mentioned, all the straightest and cleanest timber will be required, and, for the second, the crooked and rough tops will all be worked up for the posts.

We therefore propose, subject to your approval, to proceed at once to make an arrangement with Mr. John Wood, a highly respectable tradesman, to prepare the two descriptions of fence to enable us to ascertain with certainty the relative cost of each, both as respects quantity and quality of timber used, and the cost of preparation and fixing; portions of the timber may well be converted to both sorts of fencing, and we can safely trust Mr. Wood, under our superintendence, to make the most of the timber, and to show with accuracy the relative cost of each fence.

He has undertaken (as before set forth) to prepare and erect in a workmanlike manner a post and three-rail fence for 3*s.* per rod.

The first-mentioned fence may be erected in situations near dwellings, where pigs, &c., are most abundant, and the other fence in retired situations, and in the interior. If our suggestion meets with your approval, we will have the preparation of the fencing commenced.

It is not a work which can be let by tender or competition, as a contractor, not having the interest of the owner of the timber at heart, would shortly waste timber to the extent of many shillings per rod; we advise, therefore, that Mr. Wood, who executes large quantities of fencing, and in whom we can entirely confide, should be entrusted with the work.

We have, &c.
(signed) *John Clutton.*
Robert C. Driver.

The Right Honourable T. F. Kennedy.

(No. 2.)

MINUTE.

WRITE to Messrs. Clutton & Driver, in reply to their letter of the 14th, on the subject of the fencing in Hainault Forest, that the Commissioner is of opinion that the best course of proceeding will be, as relates to the timber lying felled, and the application of a portion of it to the fencing required,

1. That all timber which is of too valuable a quality to be applied to fencing shall be separated from what is of inferior quality; its quantity ascertained; an estimated value stated; preparation made for a sale by auction, if such value can be had; if not, that the timber shall be held over.

2. Thus the timber of superior quality will be entirely detached from the inferior, or fence-timber.

3. The Commissioner is of opinion, that the fence-timber should be converted into the kind of fence to which it can be most economically applied; and the quality and character of the wood must determine the proportions in which it can be so applied to post and rail, or to upright fencing, such as has been placed around the bark-stacks. The Commissioner has a preference for the upright fencing, where it can be had without a sacrifice of wood, even at a small additional money cost, but not at a waste of wood.

On these principles, the Commissioner would wish the preparation of the fence-wood at once to proceed, and is well satisfied that Mr. J. Wood should be employed on the work, under the authority and local superintendence of Mr. M'Cletchie, through whom the Commissioner requests that Messrs. Clutton & Driver will issue their instructions.

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In due time, the Commissioner will wish to have reported to him:—

1st. The quantity and value of the timber which may be sold, and the rates per foot at which the value is estimated.

2d. The number of perches of fence for which fence-wood will be provided from the wood in hand, in order that, when the total extent of fencing shall be ascertained, the deficiency of fence-wood may be known, and which must be provided from other sources. It is unnecessary to consider from what sources, until the extent of deficiency is ascertained.

Let the letter to Messrs. Clutton & Driver enclose a copy of this Minute as accurately giving the Commissioner's words, and let a copy be sent to Mr. M'Cletchie for his instruction and direction.

21 August, 1852. (signed) *T. F. K.*

(No. 3.)

Gentlemen, Office of Woods, &c., 7 September, 1852.

I am commanded by the Commissioner in charge of Her Majesty's Woods and Forests, in reply to your letter of the 14th ultimo, on the subject of the fencing in Hainault Forest, to state, that he is of opinion that the best course of proceeding will be, as relates to the timber lying felled, and the application of a portion of it to the fencing required,

1. That all timber which is of too valuable a quality to be applied to fencing, shall be separated from what is of inferior quality; its quantity ascertained; an estimated value stated; preparation made for a sale by auction, if such value can be had; if not, that the timber shall be held over.

2. Thus, the timber of superior quality will be entirely detached from the inferior, or fence-timber.

3. The Commissioner is of opinion that the fence-timber should be converted into the kind of fence to which it can be most economically applied, and the quality and character of the wood must determine the proportions in which it can be so applied to post and rail, and to upright fencing, such as has been placed around the bark-stacks.

The Commissioner has a preference for the upright fencing, where it can be had without a sacrifice of wood, even at a small additional money cost, but not at a waste of wood.

On these principles, the Commissioner would wish the preparation of the fence-wood at once to proceed, and is well satisfied that Mr. J. Wood should be employed on the work, under the authority and local superintendence of Mr. M'Cletchie, through whom the Commissioner requests that Messrs. Clutton & Driver will issue their instructions.

In due time, the Commissioner will wish to have reported to him:—

1st. The quantity and value of the timber which may be sold, and the rates per foot at which the value is estimated.

2d. The number of perches of fences for which fence-wood will be provided from the wood in hand, in order that, when the total extent of fencing shall be ascertained, the deficiency of fence-wood may be known, and which must be provided from other sources. It is unnecessary to consider from what sources, until the extent of deficiency is ascertained.

I am, &c.

J. Clutton, Esq.
R. C. Driver, Esq.

(signed) *G. S. Bedford.*

(No. 4.)

Hainault Forest.

Sir, No. 5, Whitehall, London, 8 October, 1852.

With reference to the instructions contained in the official letter, No. 1,197, 21/8/52, on the subject of the timber in the above forest, we now have the honour to observe that we have been for some time last past carrying out the instructions therein contained, and will, in due course, report to you fully hereon, so soon as all the matters therein referred to are completed.

With reference to the timber reserved for the fencing, Mr. J. Wood (the person referred to in the said official letter) has, under Mr. M'Cletchie's orders (Mr. M'Cletchie being first instructed in the matter by us), inspected the whole of the timber reserved for the said fencing, and likewise inspected the fence around the bark stacks; and he is of opinion, together with Mr. M'Cletchie and ourselves, that this upright fencing can be obtained to a great extent from the timber in question, provided the top rail is composed of spruce fir; and, by this means, expense will be saved both in labour and materials, as the oak in this forest is not

not so available for the top rail as the spruce fir; and, by this means, there will still be left a greater quantity for the uprights.

The expense of converting the oak into top rails would be 6*d.* per rod, and the whole cost of the spruce fir would be, for converting and materials, 10*d.* per rod, and thus the saving, in the aggregate, would be considerable.

Upon receiving your instructions, we will forthwith arrange for the obtaining the proper supply of the spruce fir.

We have, &c.
For Self and John Clutton,
(signed) *Robert C. Driver.*

The Right Honourable
T. F. Kennedy.

(No. 5.)

(1390.)

Gentlemen, Office of Woods, &c., 14 October, 1852.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests, to acknowledge the receipt of your letter of the 8th instant, reporting as to an inspection by Mr. Wood of the timber proposed to be used for making fences in Hainault Forest, and I am to convey to you the approval of the Commissioner of the course to be pursued as suggested by you, and to authorize you to take the necessary steps for obtaining a proper supply of the spruce fir for making the top rail of the proposed fencing.

I am, &c.
(signed) *G. S. Bedford.*

Messrs. Clutton & Driver.

(No. 6.)

HAINAULT.

Sir, 5, Whitehall, 24 January, 1853.

WE beg to forward you a letter received by us from John M'Cletchie, dated 23d instant, enclosing one from John Wood, dated the 21st instant.

I am, &c.
For Clutton & Driver,
(signed) *Robert C. Driver.*

The Right Hon. T. F. Kennedy.

(Enclosure.)

HAINAULT FOREST.

Gentlemen, Little Heath, 22 January, 1853.

I HAVE herewith enclosed a letter which I got from Mr. Wood to-day, regarding the fencing.

Might I thank you to get an order forwarded to me of what is to be done.

I am, &c.
(signed) *John M'Cletchie.*

Messrs. Clutton & Driver,
8, Whitehall-place.

(Enclosure, No. 2.)

Sir, Banstead, 21 January, 1853.

I HAVE been thinking, would it not be the best for you to go to some of the parties concerned, Mr. Kennedy or any others that you can. I was to work under your directions, and you can inform them that I am being put to great inconvenience not to be fixing, as a great deal of it is prepared; the weather at present is much against such work, but trust it will soon be better.

Hoping you will be able to set my men on as soon as possible,

I remain, &c.
(signed) *John Wood.*

Mr. M'Cletchie.

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Relating to Annual Report to Parliament.

(No. 7.)

(2,162.)

Gentlemen, Office of Woods, &c., 26 January, 1853

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests to acknowledge the receipt of your letter of the 24th instant, transmitting a letter received from Mr. M'Cletchie, enclosing one from Mr. Wood, relative to the fencing in Hainault Forest, and to state that the Commissioner was not aware that Mr. Wood had been authorized to do more than convert, or prepare, the timber for fencing, and that he cannot authorize the performance of any further work, until estimates are submitted to, and sanctioned by, the Treasury.

The Commissioner apprehends the fixing of the paling to be part of the fencing which has yet to be submitted to the Treasury.

In these circumstances, the Commissioner does not see that Mr. Wood can justly complain of inconvenience.

I am, &c.

Messrs. Clutton & Driver. (signed) *G. S. Bedford.*

(No. 8.)

HAINAULT.

Sir, 5, Whitehall, 28 January, 1853.

REFERRING to the official letter, No. 2,162, on the subject of the Hainault fencing, we beg to observe, Mr. Wood was not officially authorized to do more than convert, or prepare, the timber for fencing; but, as it had been arranged that he was to put up the fencing at the stipulated price of 3 *s.* per rod, we assume Mr. Wood is desirous of commencing his operations at once, and thus anticipated the instructions to be given in due course. We have written to him that no further work than the above conversion and preparation can be authorized until estimates are submitted to, and sanctioned by, the Treasury, and that instructions will then be given by us as to how and where he is further to proceed.

We beg further to observe, that the fixing of the paling is included in our estimate of the fencing, sent in some short time since.

We are, &c.

For Clutton & Driver,

The Right Honourable T. F. Kennedy. (signed) *Robert C. Driver.*

(No. 9.)

(2187.)

Gentlemen, Office of Woods, &c., 29 January, 1853.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests to acknowledge the receipt of your letter of the 28th instant, respecting the fencing in Hainault Forest, and to acquaint you that he, in the meantime, wishes to be in no way committed to Mr. Wood, further than for the preparation of the wood for fencing, not for putting it up, as, until the whole subject of the work to be performed is decided, the Commissioner must be free in all respects, except as regards the conversion of the wood, and that, although a price of 3 *s.* per rod for preparing and fencing was estimated, he authorized only the preparation.

I am, &c.

Messrs. Clutton & Driver. (signed) *G. S. Bedford.*

No. 5.

Sir, Treasury Chambers, 31 October, 1853.

I AM commanded by the Lords Commissioners of Her Majesty's Treasury to acknowledge the receipt of your communication of the 25th August last, on the subject of your Annual Report recently presented to Parliament, and to observe, with regard to that part of it which relates to Hainault Inclosure, that the correspondence which is annexed to your letter puts in a clearer light the views by which you yourself were governed in the transaction to which it refers, and so far tends to modify the opinion which my Lords had expressed on the subject.

They must, however, add that it does not make any material alteration in the circumstances of the case, as previously communicated to their Lordships, with which the Commissioners in charge

charge of the Land Revenue had to deal. It confirms the fact that Mr. J. Wood had made a tender in September, 1852, for the preparation and erection of the wood-fence at the rate of 3 *s.* per rod; and, although you, in authorizing the employment of this person, intended, as appears from the subsequent letters, to limit the engagement to the preparation of the wood, my Lords do not think that any other interpretation could fairly be put on your first instructions than that Mr. J. Wood's tender was approved, subject to future detailed instructions for proceeding with the erection of the fence.

My Lords, therefore, retain their first opinion that, when you raised objections to the estimates of Messrs. Clutton & Driver, you had already expressed your approval of a course of proceeding, which virtually involved an expenditure amounting to nearly half the amount of the estimates; and that the terms in which this matter is referred to in your Report is calculated to convey an erroneous impression of the facts of the case, somewhat prejudicial, and not quite fair, to those gentlemen.

My Lords think it right further to observe, that the explanation which you now afford, regarding the course of proceeding which you contemplated for procuring competent contractors from Scotland for the works at Hainault, is at variance with the statement in your Report in reference to the letters between yourself and Mr. Barr of Ardrossan, to the effect that you had reason to believe that you had found in that gentleman an eligible contractor for the works; and my Lords do not understand why, if the fulfilment of your expectations depended, as you now state, on your personal interference, you did not communicate that impression to Mr. Gore, when you forwarded to him the letters in question.

It would have been the duty of Mr. Gore, and my Lords are persuaded that it would have been no less his desire, to avail himself of any suggestion, or aid, which you might have been disposed to afford, in obtaining the best attainable contract for the works.

There is only one other point in your letter upon which my Lords feel it necessary to make any remark. They had hoped, after the free admission made by you in a former letter, of the irregularity of the way in which Mr. Brown was employed, that they would not have been called upon again to refer to that subject; nor would they do so now, if the remarks in your letter did not seem to proceed upon a principle altogether subversive of that check and control over the public expenditure which Parliament has reposed in this Board. You quote from the letter to which you are replying, the following passage: "It cannot be doubted "that, if Mr. Kennedy had represented to their Lordships his desire to obtain the professional "advice of Mr. Brown, they would, on being satisfied regarding the grounds on which he "considered such a course necessary, have readily acceded to his proposition, under proper "instructions."

You criticise this passage by saying, that "you are unable to understand how, on this "subject, my Lords should be enabled to know exactly what would have been the opinions "of their predecessors in office;" and you then proceed to state the grounds upon which you consider that you "should not probably have succeeded in procuring the sanction of "their Lordships for the employment of Mr. Brown." In the first place, my Lords must again repeat their confident belief that their immediate predecessors, or any other Board of Treasury, would, as it must have been their obvious duty, "on being satisfied regarding the "grounds on which such a course was necessary," have sanctioned the appointment of Mr. Brown "under proper instructions."

It is, therefore, because my Lords feel assured that their predecessors would have sanctioned whatever course they may have been "satisfied" was "necessary," on grounds stated to them, that my Lords have ventured to say, that they have no doubt that the employment of Mr. Brown would have been sanctioned, had you satisfied their Lordships of its necessity. But, if there be any truth in your surmise, that your proposal would not have been sanctioned, and which could only have been the case had their Lordships not been satisfied as to the grounds on which the application was made, then does the course pursued by you on your own responsibility, and without affording the Lords of the Treasury an opportunity of exercising the discretion and control which Parliament had reposed in them, appear more than ever in an objectionable light, and my Lords are unable to understand how you should put forward this argument in your own justification. It might have been that you were right, and that their Lordships, had they declined your proposal, were in the wrong; but, in that case, the responsibility would have rested where it should.

It must be obvious, if the control of this Board over matters which Parliament has confided to it may be evaded, as your argument distinctly implies, where it is believed that their Lordships' decision would be adverse to any given proposal, and subordinate departments for that reason fail to receive the necessary sanction for their acts required by Parliament, but proceed upon their own responsibility, that in that case, the checks imposed by the Legislature on the conduct of public business and expenditure would be entirely lost. On the contrary, it must be plain that it is just in cases where the greatest doubt exists as to the sanction of this Board (with whom the responsibility ultimately rests) being given, that such sanction should be most scrupulously sought; and therefore, whether the former Board of Treasury would have sanctioned the employment of Mr. Brown or not, it was equally your duty to have referred it to them.

My Lords regret that you should have thought it necessary to use such an argument, especially as you immediately proceed to say, that "you had not the remotest wish to avoid

Royal Forests.

Relating to Annual Report to Parliament.

"seeking their Lordships' sanction; but the necessity for doing so never entered into your "mind;" and therefore, while my Lords have thought it necessary to observe upon the arguments used by you, lest their silence might be construed into an acquiescence in a most objectionable principle, yet they are perfectly willing to exonerate you from the charge of having acted upon it, and readily accept your explanation that the omission, on your part, arose from inadvertency, and was not intentional.

My Lords are not, however, equally satisfied with the grounds of this omission, as stated in your Report to Parliament, to the effect that pressure of Parliamentary business precluded you from resorting to the Treasury, because my Lords believe that, in the long run, nothing is gained in point of time by informal and irregular proceedings. But my Lords are particularly desirous that their observations upon the employment of Mr. Brown should not be misunderstood; and the more so, as your letter is calculated to produce an erroneous impression as to their views upon that subject. You say, "If I am to judge from present opinions, "it seems at least doubtful if the sanction of the Treasury would have been given. I have "been informed, in a previous communication from Mr. Wilson, to the effect that no "grounds whatever existed for such a special inspection of the forests as I employed Mr. "Brown to make; at least, so far as my memory serves me, this is the substance of a pre-"vious letter on this subject, to which I have not the means of referring, being in the "country."

It is to be regretted that you should have made such a statement from memory, or without a specific reference to the communication which you had in your mind. My Lords are not aware of any passage in the previous letters of this Board which is susceptible, even if taken by itself, of such a construction. They indeed stated their opinion that, having reference to the expense so recently incurred in an inspection of the Royal forests, it was your duty to have shown the necessity for a further inspection before employing Mr. Brown; but in all their communications, even while they expressed their objections to the course of proceeding followed in this matter, they have expressed no opinion adverse to the advantages of Mr. Brown's being employed, or to the value of his reports. On the contrary, my Lords have shown their appreciation of some of Mr. Brown's recommendations by adopting them; and it is just in proportion as my Lords are disposed to value those reports, and to think well of the ability which Mr. Brown has exhibited for the task on which he was employed, that they regret that his services were not engaged in a more regular form, and that he was not thereby put in more direct and harmonious relationship with the existing authorities, by which he would have had better opportunity of ascertaining the facts necessary for making his reports as complete as possible, and by which much misunderstanding, which has subsequently arisen, in consequence of the mode in which he was employed, might have been avoided.

When, therefore, my Lords object to the manner in which Mr. Brown has been employed, it is, as has been frequently explained to you, more because they feel that it has rendered his services much less complete and useful than they would otherwise have been, had the same ability been brought to the task under more favourable circumstances, rather than to the mere omission of resorting to this Board for its sanction taken by itself.

As you are aware, the reports of Mr. Brown, and the counter reports of Mr. Clutton, are now under their Lordships' consideration. They regard it as a subject of the gravest importance; and you may rest assured that, whatever course is adopted in relation to them, those of Mr. Brown will not be prejudiced, in consequence of the irregularity upon which my Lords regret they have had reason to remark in this and former letters.

My Lords have only to add, that the concluding request in your letter shall be carefully complied with.

I am, &c.

The Right Hon. T. F. Kennedy. (signed) *James Wilson.*

EMPLOYMENT OF MR. BROWN.

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1	26 Feb. -	To Treasury - -	With Miscellaneous Cash Payments, from 1 April, 1852, to 31 January, 1853 - - - - -	20
2	5 Mar. -	From Treasury -	Requesting Explanation of certain Items - - -	20
3	24 — -	To Treasury - -	With Explanations required - - - - -	20
4	11 Apr. -	To Treasury - -	Transmitting Mr. Brown's Accounts - - -	21
5	15 — -	From Treasury -	Authorizing Miscellaneous Cash Payments, excepting those due to Mr. Brown - - - - -	21
6	15 — -	From Treasury -	Postponing Payment of Mr. Brown's Bills until his Total Charges are before them, and considering that previous Sanction should have been obtained -	21
7	21 — -	To Treasury - -	Relative to Mr. Brown's employment on Special Surveys, and deferring till a future time full Explanation - - - - - - - - - -	22
8	23 May -	To Treasury - -	Transmitting Statement of Mr. Kennedy's Reasons for engaging the services of Mr. Brown, dated 23 April, with Schedule annexed. (Two Enclosures) -	23
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10	19 Dec. -	From J. Brown -	Requesting Decision as to his Appointment - -	32
11	21 — -	To Chancellor of Exchequer.	Sending Copy of Mr. Brown's Letter of 19th December, and urging that immediate steps be taken to secure his Services - - - - - - -	33
	1854:			
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21	18 — -	From J. Wilson -	Transmitting Copy of their Lordships' Minute of the 10th January, relative to the Appointment of Mr. Brown, and directing a Copy of same to be transmitted to Mr. Clutton, Mr. Higinbothom, and Sir James Campbell, Bart. (One Enclosure) - -	36
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Employment of Mr. Brown.

No. 1.

My Lords, Office of Woods, &c., 26 February, 1853.

We beg leave to lay before your Lordships a schedule of cash payments during the period from 1st April, 1852, to 31st January, 1853, amounting to the sum of 3,018*l.* 16*s.* 5*d.*, and we request the favour of your Lordships' authority for charging this expenditure upon the Land Revenues.

We are, &c.
(signed) *C. Gore.*
T. F. Kennedy.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury.

No. 2.

Gentlemen, Treasury Chambers, 5 March, 1853.

The Lords Commissioners of Her Majesty's Treasury have had before them the schedule of cash payments in your department during the period from 1st April, 1852, to 31st January, 1853, which was submitted with your communication of the 26th ultimo.

I am commanded by their Lordships to request an explanation of the payments of 13*l.* 8*s.*, on the 8th May, 1852, to Mr. W. N. Round, for extra services.

With reference to the payments, on the 14th April, 1852, to Mr. James Brown, of the two sums of 42*s.* 1*s.* 6*d.* and 41*l.* 14*s.* 6*d.*, I am to request that my Lords may be informed whether they comprise all the payments that have been made to him within the period to which the account refers.

I am further to state, that in that portion of the account which relates to the Land Revenue of England and Wales, my Lords observe that charges are included for the travelling-expenses of Mr. Gore and other officers; but there are no such charges in the account for "Scotland, Ireland, and Woods and Royal Forests," and I am to request an explanation whether any expenses of this nature have been incurred in the latter branches of the department during the period to which the account refers; and, if there have been such charges, why they have not been submitted for the sanction of this Board in the usual manner.

I remain, &c.
(signed) *James Wilson.*

The Commissioners of Woods, &c.

No. 3.

My Lords, Office of Woods, &c., 24 March, 1853.

We have to acknowledge the receipt of your Lordships' letter of the 5th instant, requesting to be furnished with explanations on certain items in the schedule of cash payments in this department during the period from 1st April, 1852, to 31st January, 1853, submitted with our report of 26th ultimo, and, in compliance with your Lordships' request, we beg to enclose our respective explanations on each item.

We are, &c.
(signed) *Charles Gore.*
T. F. Kennedy.

To the Lords Commissioners of Her Majesty's Treasury.

Explanation by Mr. *Kennedy.*

The two payments of 42*l.* 1*s.* 6*d.* and 41*l.* 14*s.* 6*d.* do not comprise all the payments that have been made to Mr. Brown within the period to which the account refers. A sum of 50*l.* was imprested to Mr. Brown on the 17th March, 1852, on account of services and expenses connected with the Royal forests; but, as the amount of actual expenditure, of which the auditors will require authority, may be more or less than the amount imprested, this payment will be submitted to their Lordships in the schedule of payments through sub-accountants, and upon the final amount of expenditure being ascertained.

There have been charges for the travelling-expenses of Mr. Kennedy and other officers in the department of Woods and Royal Forests and Land Revenue of Scotland; but, upon reference to the Miscellaneous Estimates, 1852–53, class 2, vote 11, this service will be provided for as follows:

"Travelling expenses incidental to the Royal Forests, &c., 150*l.*"

The travelling-expenses of the Commissioner in charge of Her Majesty's Woods, &c., have been provided for by votes of Parliament; such charges do not appear in the schedule of payments now before their Lordships, which is comprised of revenue charges alone.

T. F. K.

Office of Woods, &c.,
24 March, 1853.

Employment of Mr. Brown.

EXPLANATION by Mr. *Gore*.

THE payment to Mr. W. N. Round, on the 8th May, 1852, of the sum of 13*l.* 8*s.* for extra services, was made under the following circumstances:

At the period of the separation of the Department of Woods and Works, on 10th October, 1851, there were a great number of queries from the Commissioners of Audit in arrear, and remaining unanswered. The replies to these queries were urgently required by the Commissioners of Audit; and, as Mr. Round had some facilities for executing this service, in consequence of the same duty having been performed by him previously to such separation, he was directed to complete the preparation of the replies in arrear at that date; and, as his official time was fully occupied upon the duties of the new department assigned to him, and, as this service required a continuous attendance beyond the ordinary official hours, I thought it would be for the advantage of the public service that Mr. Round should be employed for this special duty at extra hours, and for which the extra remuneration submitted for Treasury authority, was sanctioned by me. This was the last special service for which extra remuneration has been or will be allowed, and I have to add that the sum of 16*l.* 2*s.*, paid to Mr. Round for similar services in the quarter to the 1st January, 1852, was submitted to your Lordships in the schedule of cash payments for the month of January, 1852, and was sanctioned by Mr. Hamilton's letter of the 5th April, 1852.

Office of Woods, &c.,
24 March, 1853.

C. G.

No. 4.

My Lords, Office of Woods, &c, 11 April, 1853.

WITH reference to that portion of Mr. Wilson's letter of the 5th March, requesting to be informed if two sums of 42*l.* 1*s.* 6*d.* and 41*l.* 14*s.* 6*d.*, paid Mr. Brown on 14th April, 1852, comprised all the payments made to him during the period from 1st April, 1852, to 31st January, 1853, and to the explanation which accompanied the joint Report of Mr. Gore and myself of the 24th March, to the effect that Mr. Brown had since received an imprest of 50*l.*, which had yet to be accounted for by him; I beg now to transmit Mr. Brown's account for his services from April, 1852, to March, 1853, amounting to the sum of 291*l.* 6*s.* 11*d.*, and to request your Lordships' authority for making this payment to Mr. Brown, deducting the 50*l.* advanced to him by way of imprest on the 17th November, 1852.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Honourable the Lords Commissioners
of Her Majesty's Treasury.

No. 5.

Gentlemen, Treasury Chambers, 15 April, 1853.

I AM commanded by the Lords Commissioners of Her Majesty's Treasury to convey to you their Lordships' authority for the several payments comprised in the schedule enclosed in your Report of the 26th February last, with the exception of the payments made to Mr. James Brown, of the sums of 42*l.* 1*s.* 6*d.* and 41*l.* 14*s.* 6*d.* on the 14th April, 1852, for travelling expenses, &c., on the inspection of Delamere Forest and Chopwell Woods, upon the subject of which my Lords will make a separate communication to Mr. Kennedy.

I remain, &c.
(signed) *James Wilson.*

The Commissioners of Woods, &c.

No. 6.

(6,338. 7,409. 4,139.—12/4.)

Sir, Treasury Chambers, 15 April, 1853.

I AM commanded by the Lords Commissioners of Her Majesty's Treasury to acquaint you, with reference to the Reports of the Commissioners of Woods of the 26th February last and 24th ultimo, that my Lords postpone any directions respecting the payments made to Mr. James Brown, of the sums of 42*l.* 1*s.* 6*d.* and 41*l.* 14*s.* 6*d.* on the 14th of April, 1852, for travelling-expenses, &c., on the inspection of Delamere Forest and Chopwell Woods, until they shall have before them a statement of the total charges incurred for the special services on which Mr. Brown has been engaged under your direction.

I am further to state, that my Lords have, in connexion with this subject, adverted to your report of the 8th inst., on the general subject of the miscellaneous payments of the Woods Department, in which you urge the necessity of the power being reposed in you of consulting persons of experience and knowledge on matters connected with the administration of your department, without previous sanction of the Treasury; and I am to observe that, in cases coming within the ordinary rules, it is no doubt necessary that the Commissioners

Employment of Mr. Brown.

sioners of Woods should have the power of engaging the services of the surveyors, or other persons connected with their department, on duties for which they would be entitled to special remuneration, or incur travelling-expenses; but it is nevertheless the duty of the Commissioners, when they may deem it expedient that any service of an extraordinary character should be undertaken, to submit the same in a special report to the consideration of this Board. The cases must be very rare in which it may be necessary to take such measures without the previous sanction of this Board; and, when any such emergency arises, it is incumbent upon the Commissioners to bring the circumstances under which they have been compelled to act, upon their own responsibility, under the notice of my Lords, at the earliest practicable period.

It does not appear to my Lords that any such emergency existed in the case of the employment of Mr. Brown on the inspection of the Royal forests, and the service was of so unusual a character, as to take it clearly out of that class of services in which the Commissioners are justified in acting without the previous sanction of their Lordships; nor do my Lords perceive that the delay of seeking the previous sanction of the Treasury could, in such a case as this, possibly lead to the result apprehended by you, namely, that "the whole "efficiency of the department would be paralyzed." On the contrary, their Lordships would have felt less difficulty than they now experience in dealing with the Reports of Mr. Brown, if the propriety of employing him on this service, and the manner in which his experience might be made available, with due regard to the position of the established officers of the forest, had been brought before them previously, instead of after, the completion of the survey.

My Lords are aware of only one previous case in which a general professional inspection of the forests was undertaken. That was when Messrs. Clutton were employed, with the aid of Mr. Hall and Mr. Neve, on a similar duty, in 1851. It is true that, on that occasion, the formal sanction of this Board was not obtained until the expense incurred was submitted for their approval; but the service was performed with the cognizance of the First Lord of the Treasury and the Chancellor of the Exchequer, for the special purpose of affording information to the Committee of the House of Commons then prosecuting an inquiry into the management of the Woods, Forests, and Land Revenues of the Crown; and the Commissioners of Woods, when they subsequently reported the circumstance to this Board, felt it necessary to justify the extraordinary course which they had taken.

With respect to the ordinary travelling-expenses of yourself and other officers on business connected with the Royal forests, I am to state that my Lords consider it desirable that the former practice of bringing these charges before their Lordships for sanction, with other miscellaneous expenditure, should be reverted to; and they have, therefore, struck out the provision for this service, which had been inserted by you in the Estimates submitted to Parliament this Session. As it is right that my Lords should have cognizance of all expenses of this nature, they request that you will furnish them with a statement, in detail, of the travelling-expenses incurred by you, or under your direction, and charged to the Parliamentary Grant of the past year.

With regard to the general question of submitting miscellaneous disbursements of the Woods, Forests, and Land Revenue Departments for the sanction of this Board, my Lords direct me to state that they will not at present establish any new regulation on the subject; but they desire that all expenditure of this character may be submitted to them in monthly statements.

I remain, &c.

The Right Hon. T. F. Kennedy. (signed) *James Wilson.*

No. 7.

My Lords, Office of Woods, &c., 21 April, 1853.

I BEG leave to acknowledge the receipt of your Lordships' letter of the 15th of April, received in this department on the 19th, acquainting me, with respect to the payments made to Mr. James Brown of the sums of 42*l.* 1*s.* 6*d.* and 41*l.* 14*s.* 6*d.*, connected with his inspections of, and reports upon, Delamere Forest and Chopwell Woods that, until your Lordships shall have before you a statement of the total charges incurred for the special services on which Mr. Brown has been engaged under my direction, your Lordships will postpone any directions respecting the two payments adverted to. I beg leave to state that, with my letter of the 11th of April, I transmitted to your Lordships Mr. Brown's account for all the services performed by him up to the 31st of March, 1853; so that your Lordships now have before you full information on that subject.

As respects the larger and more important part of Mr. Wilson's letter of the 15th of April, addressed to me by your Lordships' command, I propose, for a short time, to postpone making such statement as I may find to be necessary; but, at no distant time, I shall be desirous to place before your Lordships some statements respecting the circumstances in which the employment of Mr. Brown originated; because, in justice to my own conduct and proceedings, I shall deem it to be essential to make a full explanatory statement, in consequence of the observations which your Lordships are pleased to make, and which I consider to be a decided censure of my conduct in this matter; but I delay, for a short time, to enter upon this subject.

Adverting, however, to that part of Mr. Wilson's letter which relates to the item of ordinary travelling-expenses incurred by myself and other officers under my directions, I hasten

hasten to transmit, in obedience to your Lordships' desire, an account of such travelling-expenses paid out of the vote of Parliament for the year terminating on the 31st of March, 1853, amounting to 75*l.* 3*s.* 10*d.*, and leaving the sum of 74*l.* 16*s.* 2*d.* under that vote unexpended. I had introduced this service into the estimate of the year, conceiving that it was desirable to bring even this small item of official expenditure prominently into view, and under the control of Parliament; but, as your Lordships are of opinion that it ought to be paid among the incidental expenses of the office in preference, I can have no desire to adhere to the opinion which I had previously formed. Employment of Mr. Brown.

I have, &c.

The Right Hon. the Lords Commissioners of Her Majesty's Treasury. (signed) *T. F. Kennedy.*

No. 8.

My Lords, Office of Woods, 28 May, 1853.

I BEG leave to refer to my letter addressed to your Lordships on the 21st April, in reply to your Lordships' letter of the 15th of April, received by me on the 19th, on the subject of the employment of Mr. Brown in several of the Royal forests and woodlands, in which I stated to your Lordships that, as I considered the letter of the 15th of April to be a censure on my conduct, I should, at a future time, make an explanatory statement to your Lordships.

That statement I at once proceeded to prepare, and should have been ready to transmit it soon after the 23d of April, on which day it was dated; but, on that day, some circumstances occurred which gave me reason to expect and hope that it might be unnecessary for me to transmit a statement to your Lordships, which it would have been much more agreeable to me to withhold, even although I might seem to remain somewhat under the censure of your Lordships, in the absence of explanation.

But, up to this time, I have been disappointed in this expectation and hope, and therefore it is that I deem it to be essential to my own honour and character, as a public officer, to transmit, enclosed, to your Lordships the letter which I had prepared on the 23d of April, and which is alike applicable to the circumstances of the present moment as to those of the time at which it was written. It is a source of sincere regret to me to take this course, but I deem it to be essential to place upon record the facts and circumstances contained in the statement which I beg leave to enclose to your Lordships.

I have, &c.

The Right Hon. the Lords Commissioners of Her Majesty's Treasury. (signed) *T. F. Kennedy.*

(Enclosure.)

My Lords, Office of Woods, &c., 23 April, 1853.

I NOW beg leave to refer to that portion of Mr. Wilson's letter of the 15th of April, addressed to me by command of your Lordships, which relates to the subject of the expenses incurred in procuring the services of Mr. James Brown, in inspecting and reporting upon certain of the woodlands and Royal forests, placed under my exclusive care and management, during the year which has just terminated, by my direction, such employment of Mr. Brown having taken place without the previous sanction of the Treasury.

It would ill become me to call in question any decision at which your Lordships may arrive, I mean as regarding the line of demarcation which ought to exist as to the exercise of my discretion in incurring expenditure without the previous sanction of your Lordships, or in previously obtaining such sanction; but, while I entirely recognise your Lordships' paramount authority in this matter, I should consider it to be subversive of all self-respect if I were not to consider myself at perfect liberty to state my opinions on any subject, and the motives and considerations which have governed my conduct and proceedings, and the subject in its present aspect is of so important a character, that I am compelled to advert to some considerations of an unusual but fundamental nature, with reference to the performance of my public duties.

When it was proposed to me by Lord John Russell to accept the office of Commissioner of Woods, I must conclude that his Lordship did so from an impression that I was qualified to perform its duties, as well by integrity as by capacity, and I had had some experience in public life, having held a seat in Parliament for 16 years, 14 out of office, and two in it, and subsequently 13 years in office, during which time, I believe, I rendered some service to the public. On entering the Office of Woods, I certainly had no intention of abandoning the principles which had governed my previous life, and I intended to do my duty to the public, and I have always found that my sense of right and wrong was a sufficient guide for my conduct without any higher sanction: but, if I had wanted such, I should have found it in the oath which, as a Commissioner of Woods, I have taken, "That I will truly, honestly, "faithfully, and diligently execute the duties of a Commissioner of Her Majesty's Woods, "Forests, and Land Revenues." I might also recollect that, in August, 1851, Her Majesty was pleased to say from the Throne, that She had given Her consent to a Bill relating to the administration of the Land Revenues of the Crown, "which, I hope, will conduce to "the better management of that department."

Employment of Mr. Brown.

Under such circumstances, and governed by such considerations on my part, I found myself, after the 10th of October, 1851, placed in the position of administering single-handed, on my responsibility to Parliament, to the public, and to your Lordships, the considerable concerns of the land revenue of the Crown in Scotland and Ireland, and the Royal forests and woodlands in England (with some exceptions), but in number amounting to 13 separate subjects of administration, besides the whole land revenue of Scotland and Ireland. Among them were certain large, important, and difficult concerns, to which I devoted all the industry and capacity I could command; but there were certain others, of inferior character, which also demanded attention, and among them, furthest to the north, stood Chopwell Woods, which, according to the evidence given before Lord Duncan's Committee and Mr. Clutton's report, was left in a deplorable and hopeless condition as to any tolerable system of management; so much so, that a sale was recommended, as the only apparent mode of escape from an impossibility of administering it to advantage. Accustomed as I have been throughout my life to the management of landed property, I could not see the force of what had been said on this subject: I did not concur in the opinion which had been given. I thought it perfectly possible to administer this property to reasonable advantage; but, while I had some reliance on my own judgment, I had not such an overweening confidence in it as to think it justifiable to proceed practically, without some advice which might support, subvert, or modify, my opinions; and this was the more especially necessary when such concerns as are committed to my care must be administered from a distance, and through the instrumentality of others; a state of things totally different from that of a private estate, to which undivided and minute attention can be given. I thought of Mr. Brown as a competent party to advise. Mr. Clutton had already advised; and I did not concur in his opinions, and I did not consider him to have any experience of the system of management which I thought would be advantageous. I knew of no larch-woods in England which were remarkable either for growth or profit; while, in the north, I knew that larch had been cultivated to great profit and advantage; and of this system I knew that Mr. Brown had ample experience. I thought, therefore, that I was fully justified in resorting to his assistance, which could be had on very moderate terms, less than one-half of those of Mr. Clutton; and, considering the universal practice of the department (to which I shall afterwards advert), I did not hesitate, in order to bring about a speedy result, to resort to Mr. Brown. I have in a former communication stated to your Lordships that, at that time, I had little personal acquaintance with Mr. Brown; but I had a decided knowledge of his public reputation, character, and skill; and I felt the course which I adopted to be less doubtful than if I had had an intimate personal acquaintance with and favour for Mr. Brown. I may here state that, besides the hopeless condition in which Chopwell Woods were stated to be in Mr. Clutton's report, I found that their net income amounted to—

	£.	s.	d.
In 1848 - - - - - -	75	2	3
„ 1849 - - - - - -	105	4	11
and „ 1850 - - - - - -	237	15	9

Such a pecuniary condition seemed to me to render vigorous proceedings imperative.

Your Lordships are aware of the progress of the subject, which, up to a certain point, is detailed in my Report to Parliament for the last year, and the subsequent proceedings will be detailed in my Report to Parliament for the year which has just terminated. On the 22d of January, 1852, I submitted to your Lordships Mr. Brown's Reports and recommendations. Your Lordships directed further investigations; and, in September last, intimated to me your opinion that the property ought to be sold. In the exercise of that independence which I hope I shall always preserve, I stated to your Lordships, in reply, that I should implicitly obey your Lordships' commands for the sale of the estate, but that I dissented from the grounds on which they were founded, and that I could accept of no responsibility for the decision to sell, and I fully stated the reasons for my opinion. Nothing further took place until January, when your Lordships were pleased to intimate to me, by Mr. Wilson's letter of the 28th of January, 1853, that your Lordships were pleased to reverse the decision made in September, and to sanction the recommendation which I, as the responsible adviser of your Lordships in this matter, had made to your Lordships 12 months before. I felt obliged to your Lordships for doing justice to my recommendation, which had been fortified by, and, in its details, founded upon, the reports of Mr. Brown; and I felt gratified that the responsibility of advising respecting Chopwell Woods was reimposed upon me, the proper depositary of such responsibility; and it was a great satisfaction to me to be relieved from the painful position of having withdrawn myself from all responsibility in the administration of a property placed under my care by statute, and by your Lordships' warrant.

Such are the details of the transactions connecting Mr. Brown with Chopwell Woods. My first Report to your Lordships was sent in January, 1852; your Lordships most carefully deliberated on the subject until January, 1853, finally ratifying my recommendations, and thus every one must come to the conclusion that your Lordships' final opinion is well founded, and thus not only I in recommending, but your Lordships in deciding, have had the full benefit of Mr. Brown's knowledge and skill; and, in these circumstances, it is not perhaps too much for me to think that my having resorted to him for assistance in a minor case, but one of great difficulty, on my own responsibility, and without the previous sanction of your Lordships, was not a course without justification or advantage to the public service.

Next, as to the case of Delamere Forest. When I sent Mr. Brown to Chopwell, I had no predetermined intention of sending him to Delamere; but, when I received his Report on Chopwell, I found it to be of so satisfactory a character, and it so fully sustained the expectation

tation I had of the value of Mr. Brown's practical aid, that I was impelled, perhaps in an over zeal for the public service, to send him into Delamere. At this time I had found, officially, that the local management of Delamere was unsatisfactory; and I felt persuaded that there could be no remedy without some vigorous inspection of details on which might be founded a system of amelioration. Mr. Clutton's Report, in 1849, was laudatory of the contents, condition, and even the management of Delamere; but, in my practical administration of its affairs, I did not find them to be satisfactory; and, with the exception of some general advice as to thinning, Mr. Clutton's Report gave me no assistance in bringing about a better or more economical administrative system. Mr. Clutton might, no doubt, have explained by saying that this formed no part of his instructions; and in so saying, he would have stated that which was perfectly correct; and perhaps he was justified in confining himself strictly within the letter of his instructions; but I found that, in the year 1848, the year previous to that in which Mr. Clutton reported, in laudatory terms, that the expenditure in Delamere Forest exceeded the receipt by 135*l.* 0*s.* 4*d.* No doubt, in the following year, 1849, the receipt exceeded the expenditure by 438*l.* 4*s.* 3*d.*; and, in 1850, the net receipt actually rose to 864*l.* 18*s.* 10*d.*, the average receipt for the three years being 389*l.* 7*s.* 6*d.*; but the net receipt again relapsed, in 1851, to 410*l.* 14*s.* 8*d.*; and, for the year 1852, the deputy-surveyor, Mr. Lipscomb, proposed, by estimate, that the net profit should amount to 587*l.* 3*s.* 7*d.* This announcement occurred at a period of the year when no time was to be lost, because it was indispensable to settle the scale of produce and expenditure for the year very early in the season; and accordingly, unless I had been prepared to acquiesce in the views of the deputy-surveyor, there was no time to be lost in endeavouring to correct them; and accordingly, on my responsibility, believing that I thereby "truly, faithfully, and diligently" performed my duty to the Crown and to the public, sent Mr. Brown into Delamere Forest, and received from him his able Report, dated 19th March, 1852, just in time and no more to enable me to attempt, for the then coming year, an improved system of management, and an increased scale of net revenue from the Forest. This I accomplished at an expense of 42*l.* 1*s.* 6*d.*, which I flattered myself was not an injudicious exercise of the discretion with which I considered myself to be invested for the public benefit. Employment of Mr. Brown.

Mr. Brown's Report sets out by stating the instructions which he received from me, and he makes a response to each of those instructions, the result of which is the following comparative statement:—

	£.	s.	d.	£.	s.	d.
Mr. Lipscomb's Estimate.						
Receipts	2,500	–	–			
Expenditure	1,912	16	5			
NET PROFIT				587	3	7
Mr. Brown's Estimate.						
Receipts	3,702	2	–			
Expenditure	1,975	4	5			
NET INCOME				1,726	17	7

ubsequently reduced, on further investigation, to a net income for the year of 1,615*l.* 15*s.* 3*d.* instead of 587*l.* 3*s.* 7*d.*, as originally proposed by the deputy-surveyor. This result Mr. Brown distinctly states is to be accomplished with a decided benefit to the permanent value and production of the forest, and gives a table of a condition and improving system for 20 years.

On the 30th of July, I visited Delamere Forest, and inspected parts of the forest of different character, and was informed that those parts fairly represented the different conditions and qualities of the forest, the best, the worst, and the average condition; and I had the benefit of the presence of Mr. Brown on that occasion, on his return to the North from Dean Forest; and this arrangement I had anxiously made, because I considered it to be of great importance and fair to both parties, in order that I might have Mr. Lipscomb and Mr. Brown in each other's presence, and fully discuss every point requiring consideration on the spot, and thus prevent misconception, which is so apt to occur when parties are separately speaking of the same thing. I felt that my visit to Delamere Forest was important, and extremely necessary; but I regret to say that it was anything but satisfactory. I do not speak of the condition of the forest, because that is a large subject, and Mr. Brown has treated of it in a practical manner, of which I am incapable; but I speak of the deputy-surveyor, as to whom, I regret to say that I formed a very decided opinion, to the effect that he had a very inadequate knowledge of his duties, and that he was not much disposed to increase it, or to pay that respect to the opinion of his superiors, who, so long as they may be placed in authority over him, and to whom he is bound to show deference, and not to indulge in flippant observations, and in an expression of ignorant opinions. I confess that I left Delamere Forest with very little hope of a successful attempt to improve the administration of its affairs, or that, so long as Mr. Lipscomb is entrusted with its management, there is any reasonable hope of satisfactory results.

During the autumn and winter, official correspondence has taken place relating to its concerns, which do not tend to remove my dissatisfaction, either as regards the concerns of the

Employment of Mr. Brown.

past year or as to the prospects of the year which has just commenced; and when on this subject the necessary information shall in due course have been laid before Parliament and your Lordships, I can entertain no doubt that Parliament and your Lordships will come to the conclusions as to the affairs of Delamere Forest at which I have arrived, as the responsible administrator of that property, and the responsible adviser of your Lordships respecting it.

As regards Dean Forest, and the circumstances which led to my being furnished by Mr. Brown with the six elaborate Reports, of which I some time since transmitted copies to your Lordships, I have to state that the magnitude of the concerns of Dean Forest and Highmeadow Woods, led me to visit the forest in April 1852, when I was much impressed with its magnitude and interesting character. At that time, my view of it was necessarily superficial, but it enabled me to understand many matters which, never having seen the forest, I could not previously understand; and I saw enough to decide me to revisit it at the earliest period which my other duties might permit, and in June, I think, I spent nine days in the forest, and could usefully have spent a longer time, had not the pressure which arose for the preparation of my Report to Parliament rendered that impossible. When I went there in June, I had no predetermined thought, or intention, of sending Mr. Brown there; but, when I came to look into the various subjects on the spot, their importance crowded upon me, and although I formed many opinions, unaided and alone, I certainly felt that it would have been presumptuous in me to act without some practical advice of the highest order; and this impression has since been abundantly confirmed, as even after having received the elaborate and able opinions of Mr. Brown, I have since found it impracticable to carry into effect some very obvious but essential alterations of management; whereas, if I had proceeded to act without such authority as that of Mr. Brown, my efforts would have been even still more powerless than I have actually found them to be.

Mr. Machen requested me to postpone some changes of system, because the woodmen were incapable of executing them, and he himself expressed a decided reluctance to undertake them, and yet I am the Commissioner responsible for the good management of the forest. I conceded this matter to Mr. Machen's wishes; but there were two points which I did hope to accomplish,—first, that young oaks should be cut before they were stripped; secondly, that the bark of young oak should be placed on temporary stages to be dried, instead of being placed upon the wet grass, as I saw while in the forest, to the great injury of its quality, as was proved by its subsequent sale at a very low price. On the 13th of November, I intimated to Mr. Machen my wishes on those two particulars; and as to the first, I thought that, after so long a notice, I ought to have been able to accomplish a simple and reasonable object, in which at the last moment I was defeated, no arrangements having been made in due time for its accomplishment, and consequently, at the last moment, it became impracticable. As to the second object, that of placing the bark on temporary stages, I hope that I shall effect this single object in the way of improvement; but even on this point I cannot have entire reliance in my success, when Mr. Langham, who is to carry it into effect, informed me last year, "that it had never been the practice in the forest," which he seemed to think a conclusive reason why it should not be done.

At the close of my visit to the forest in June, I certainly was deeply impressed with the urgency of preparing to take some steps by which an improved system of management in the forest might at least be attempted; and certainly I did not fail to bear in mind, while in the forest, the signal service which I considered myself to have procured from Mr. Brown, with reference to Chopwell and Delamere; and so eager was I to attempt to do my duty that, before I quitted the forest, I wrote to Mr. Brown, knowing the number of his engagements, to ascertain whether he could give me three weeks of his time in Dean Forest in the month of July; and I was most desirous that he should come there while things were nearly in the same state in which I had myself seen them. He gave up other engagements to meet my wishes, and to undertake what I desired. On the 28th of June, I issued to him certain instructions, the best that I could frame, under the great pressure of other business, and which are now before your Lordships, along with Mr. Brown's six Reports, which Reports are, in my humble apprehension, a masterly response to the requisition for the information which I made to him. Among the subjects on which I wished to have the opinion of an experienced man, was the introduction of a sawing-power into the forest, on which well established system of management I found that an entire want of knowledge and thought existed in the forest. Mr. Brown's first Report embraces this subject; and your Lordships have been pleased to sanction the establishment of sawing-machinery, as recommended by Mr. Brown, and I have entered into a contract for it; and I venture to think that the accomplishment of this single purpose is a fact of the utmost interest in the general management of the Royal forests; and all persons of judgment and experience to whom I have mentioned the subject, whether in England or Scotland, concur in this opinion.

I am most desirous not here to enlarge upon the contents of Mr. Brown's Reports to your Lordships, who have the fullest opportunities of appreciating their merits; and, while I never would compromise my opinion on any subject which I held advisedly, to Mr. Brown or to any other surveyor, I must beg leave frankly and freely to state to your Lordships, that I never can consent to be responsible for the successful administration of Dean Forest and Highmeadow Woods in all their magnitude and great value if well managed, if I should be compelled to act upon principles at variance with opinions which I deliberately think to be right, and advantageous for the public interest, as contrasted with what I consider to be wrong, and highly disadvantageous to that interest. My opinions I indicated only slightly to Mr. Brown, in order that he might have perfect freedom in stating his own, but I find

my

my opinions fully supported, and far more ably illustrated by his practical knowledge than I could have hoped to maintain them. If, then, I should be compelled to act in a contrary spirit, I must humbly request of your Lordships that I may be absolved of all responsibility, and that Parliament and the public may be informed of the position in which I stand, nominally the Commissioner of Woods, but without power to act on my convictions. If I am fit to be a Commissioner of Woods, I am fit to be confided in, and if I am not fit to be confided in, I ought to cease to be a Commissioner of Woods, and I must take care that Parliament and the public shall be informed of the reason why, at a late period of my life, I should be deemed to be unfit to be confided in as a public servant, which I was for a long period, by men of whose confidence, good opinion, and friendship I shall be proud to the latest hour of my life. I think that I have offered to your Lordships a sufficient explanation why I presumed to employ Mr. Brown without your Lordships' previous sanction. The case was urgent, time did not admit of it; and if in June, 1852 I had paused or faltered, I cannot help feeling that I should not now have been in possession of the valuable recommendations which I have received from Mr. Brown. Employment of Mr. Brown.

Mr. Machen is about to retire, after forty-seven years' service; and, unless Mr. Brown's Reports were now in existence, I do not see how any man could undertake the practical management of Dean Forest and Highmeadow Woods. The loss of Mr. Machen's gentle sway in the forest would render its future condition most hazardous, unless there existed such comprehensive details of management as exist in Mr. Brown's Reports, but which will themselves be useless unless they shall be carried into effect by some individual who enters heart and hand into their execution in the spirit in which they are framed.

Your Lordships may, perhaps, say that I ought to have reverted to Mr. Clutton's Report on Dean Forest in 1849, and I have not failed to give to it my best attention. I should have been glad to have availed myself of its contents, as I have done, without going back upon what I consider to be its defects; but, if a question is to arise as to whether I am to administer Dean Forest in the spirit of Mr. Clutton's Report of 1849, or of Mr. Brown's Reports of 1852, I must, with the utmost respect for your Lordships' paramount authority, state that I must and can adopt the latter alone; and I am, therefore, compelled to state the reasons why, which I should have been glad not to do.

Reading Mr. Clutton's Report of 1849, and going into the forest and examining into details, I am constrained to say that I look upon Mr. Clutton's Report as a superficial apology for the forest. He brings into prominent view the great merits and value of the forest, and those I am the last person to undervalue; on the contrary, I believe that I estimate the value of the forest higher than Mr. Clutton when he states, that he considers the utmost value of the forest to be 10*s.* per acre. I am of a different opinion, and I think that if the forest was energetically and skilfully managed that a much higher progressive annual value might be realized. Mr. Clutton praises what is to be praised, but finds no fault with, and omits all mention of that which does not admit of being praised; and he may truly say, that it was no business of his to find fault and criticise; his instructions did not call upon him to criticise; and I think these instructions were extremely defective, inasmuch as they did not stringently call upon him to develope defects of management as well as to enlarge on the merits of the forest; but, according to Mr. Clutton's experience, perhaps he thought that no faults existed. Mr. Clutton thinks that the forest is sufficiently drained and amply thinned; I think otherwise, and Mr. Brown agrees with me. He thinks that some parts of the forest are overthinned, while he does full justice to those parts of the forest which he considers to be in an excellent condition. Mr. Clutton states that "the present state of Dean Forest, so "far as regards the lands planted with timber, both enclosed and unenclosed, is as good as "can be." This would seem to me to be rather an unqualified statement with regard to any property, public or private; it is somewhat too much of a panegyric. Without going into details, I must state that I do not concur in the opinion; while I think that there is much which is good, I also think that there is much which is defective, and might be improved; and while I should always be desirous of deriving what benefit I could from Mr. Clutton's opinion and experience, I never can consent to be implicitly governed, against my own judgment, by the opinion of Mr. Clutton, Mr. Brown, or of any surveyor whatever. I am either fit to exercise my judgment in the superior position in which I am placed, or I ought not to fill it, and ought to be removed from it. Mr. Clutton again states that "we do "not think it possible that plantations of young trees can be in a more profitable condition." I think that this statement is somewhat overdone; I cannot coincide in so unqualified an opinion.

In the conclusion of his Report, Mr. Clutton adverts to the facilities for the conveyance of the produce of the forest by land and water, and seems to consider them highly advantageous. I admit that nature has given every facility, and that it is much to be regretted that long since such facility should not have been rendered available by man. But Mr. Clutton seems to have been very imperfectly informed on this subject, inasmuch as the disadvantages under which the forest labours in respect of cheap and ready conveyance are of the most crying description. I have adverted to this subject with some pains in my Report to Parliament for the year ending 31 March, 1852.

These are some of the grounds on which I could not rely on Mr. Clutton's Report of 1849 for the practical administration of Dean Forest, and why such assistance as I have derived from Mr. Brown I deem to be indispensable. I will not despair of your Lordships arriving at the same conclusion, and that you, on full consideration, will not permit the question of official propriety as regarding your Lordships' authority to employ Mr. Brown being sought after he had been so employed, instead of before, to supersede the whole substance of the case, and to prevent the fullest benefit being derived to the public from his able services.

Employment of Mr. Brown.

But, before quitting the subject of Mr. Clutton's Report, I must beg leave to advert to some of the facts at the time when that Report was made, viz., the year 1849, but to which Mr. Clutton makes no allusion whatever; I mean the facts as to the relative amounts of receipt and expenditure, and consequently of net income, in which facts are involved all the merits or demerits of a vigorous, skilful, and economical system of management, to which subject my attention, and that of Mr. Brown, has been anxiously directed.

I find that for the year ending the 31st of March, 1849, a few days before the date of Mr. Clutton's Report, the expenditure in Dean Forest	£.	s.	d.
amounted to	9,948	19	3
And the gross receipt to	5,841	–	8
Leaving a deficit on the year of £.	4,107	18	7

On Highmeadow Woods, a property of 4,000 acres, there was indeed a surplus of 88 *l.* 0 *s.* 3 *d.*

In the year ending 31st March, 1850, in which any suggestions of Mr. Clutton for a more economical mode of management might have been carried into effect, there was no doubt an improvement, because, although the expenditure	£.	s.	d.
remained nearly the same, viz.,	9,243	19	6
The produce was increased, and amounted to	8,707	4	9
Thereby leaving a smaller deficit, but still a deficit, of £.	536	14	9

Therefore, there was no great improved system of management or of economy, the difference of result arising from increased produce.

In the year ending 31st of March, 1851, there was indeed some reduction of expenditure, because it amounted only to	£.	s.	d.
	7,971	7	3
While the produce amounted to	8,014	11	8
Leaving a net income £.	43	4	5

for the woods and plantations which Mr. Clutton had commended in terms so unqualified. In that year, there was a net income of 1,416 *l.* 16 *s.* 6 *d.* from Highmeadow Woods. On facts such as these, Mr. Clutton made no remark indicative of any opinion that the management might be better.

In the year, ending 31st March, 1852, a net income arose in Dean	£.	s.	d.
Forest, of	4,369	–	1
And in Highmeadow Woods, of	2,099	1	–

But this improved aspect of affairs did not arise from any improved management, which was in no way altered, but from the supply of timber to the Royal Navy having recommenced in that year, and thus the gross produce had been considerably augmented. This result was, in some degree, satisfactory, but no real satisfaction could exist unless there was a decided conviction that the system of management was at once vigorous and economical. This conviction I did not entertain, although by this time the administration of the forest was exclusively under my care.

For the year ending 31st March, 1852, I had an estimate framed, the basis of which was a large increase of timber for the Royal Navy, on the two-fold ground of raising the net income, and arresting the progress of decay in the old timber, which was yearly losing value by a considerable per-centage. According to this

	£.	s.	d.
estimate, the gross produce was no less a sum than	28,227	10	–
And the estimated expenditure	7,106	17	–
Leaving an approximated net income of	21,120	13	–

It remains at this moment to be seen, to what extent this estimate will be actually realized; and, although owing to some causes it will not be borne out, I hope that by others it will be nearly, if not wholly, sustained. But, at all events, the income for the year which has just terminated, will be comparatively a large sum. Among the causes of the diminution, is the necessity of stacking the bark; no one bid at the sale before it was stacked, so that there was no alternative, and the price of bark throughout the country fell to an unprecedented degree. Then, the flittern bark, which I saw lying on the wet grass, and which Mr. Langham thought was quite right, suffered serious damage; and even after the expense of stacking, was sold at the miserable price of 2 *l.* 17 *s.* per ton, whereas, if it had been well saved, it ought, notwithstanding the low price of bark, to have realized from 4 *l.* to 4 *l.* 10 *s.* a ton.

But in the improved revenue of Dean Forest for the by-gone year, I claim no credit for improved management. It has arisen from the mere force of cutting timber which it was on all grounds proper to cut; and, while the result is good on one side of the accouut, I have little doubt that the same benefit might have been realized at a less cost; but on that I have no wish to dwell.

When I say this, however, I must add that, when I went into the forest in June, I was most desirous to lay the foundation of a better system of management; and this brings me back

back to the point from which I started, viz., the grounds on which I determined, on my own responsibility, to seek the assistance of Mr. Brown, and the steps which I took to accomplish the benefits to the public service which I had at heart. If in taking those steps I have committed a serious error, or one which justly exposes me to the censure of your Lordships, I shall sincerely regret it; but it has been altogether impossible that I could submit in silence to the censure which was implied in Mr. Wilson's letter of the 15th of April, and which, in the absence of free and manly explanation of the part which I have acted, I felt to be probably only a prelude to further censure, your Lordships misapprehending the principles on which I had acted, and on which alone I can consent to act, and compelling me to be guided in the performance of my public duty by principles of management which I cannot approve. Employment of Mr. Brown.

When I commenced this letter, it was my intention to have followed it out through the services of Mr. Brown, in respect to the four minor forests in Hampshire, and to the New Forest; but my statement has extended to a length which I could not have contemplated, and I have been unable to do justice to the subject with greater brevity. I will, therefore, abstain in the present communication from making any statement to your Lordships, having relation to the four minor forests in Hampshire, and to the New Forest. I hope that it may be unnecessary to recur to that subject; but, if it should be, I am prepared to enter upon it in the same manner as that in which I have discussed the subject of Chopwell, Delamere, and Dean Forests. My motives and actions were the same in all; and I venture to think, in my humble apprehension, that similar benefits have been derived in all, from resorting to the advice of Mr. Brown; and that consequently, although I may have erred in propriety, to the letter, that in spirit and substance (and I am certain in motive) I have acted for the benefit of the public service.

But, before I finally close this statement, I find myself imperatively called upon to refer to those passages of your Lordships' letter of the 15th of April, which seem to convey the opinion that the Royal forests, and revenues of the Crown arising from them, ought to be exempted from that searching supervision which they seem to me to require, "having a due "regard to the position of the established officers of the forests." I did not feel that in any proceeding taken by me, I interfered in any respect with the position of those officers, but I certainly felt it to be my duty to see that they performed their duties to the Crown and to the public; and that, if they were deficient in knowledge as to the best modes of doing so, that they should be instructed and led into the right paths. I certainly felt, at the same time, what was due to my own position, a position superior to that of the local officers, and which imposed upon me a responsibility of which I was duly sensible, and from which I had no desire to shrink. I did not think that the Royal forests enjoyed any immunity from good management, or were privileged to be mismanaged; and I must beg permission to state to your Lordships the important facts that, with reference to the other branches of my duties, I followed precisely the same course which I did with respect to the Royal forests, by calling for advice where I thought it was required, and such course of proceeding was not only not objected to by your Lordships, but was sanctioned and approved of.

I refer to the case of the land revenue of Scotland, with respect to which, during the last two years and a half, the services of Mr. Caird were resorted to without the previous sanction of your Lordships, in the first instance by the late Board of Woods, and subsequently by myself, individually, regarding the Crown's estates at Stirling, in Caithness, and in Orkney. In all those cases, the services of Mr. Caird were resorted to without the previous sanction of your Lordships, were subsequently reported, and my recommendations invariably received the sanction of your Lordships, with your authority for the payment to Mr. Caird of the expenditure incurred. In the same way, as regards the land revenue in Ireland, I resorted to the assistance of Mr. M'Culloch with respect to four different estates, and my recommendations, founded on Mr. M'Culloch's reports with respect to three of them, received your Lordships' sanction, and the expenditure was authorized to be paid. With respect to the fourth case, that of King Williamstown, the subject remains under consideration, but Mr. M'Culloch's expenses were authorized to be paid. I cite those cases in order to show that I was proceeding in a consistent course, and that that course has not been objected to by your Lordships, except with respect to the Royal forests; and it had not occurred to me with respect to them, which more than any other possession of the Crown required an amended system of management, that it was not my bounden duty to effect such amendment.

Looking into the subject more generally, I find that the practice of the late Board, and of both branches of the office, has been to resort to practical assistance in many cases. I annex for your Lordships' information a statement to illustrate this fact. Subsequent to 1st January, 1852, and acting on the same principle with reference to the forests, I did not think that I ought to pursue a different course, by viewing each forest as a distinct interest of the Crown, requiring the same attention, and to be dealt with in the same manner as other interests had been dealt with, according to the usage of the office.

But, in making this statement of facts to your Lordships, I am not now contending for a principle, but merely making a statement of facts in explanation of the course of proceeding which, before receiving any intimation from your Lordships, I felt it to be my duty to pursue.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Honourable the Lords
Commissioners of Her Majesty's Treasury.

(Enclosure.)

A SCHEDULE of Services performed subsequently to the 1st of January 1851, and previously to the Sanction of the Treasury being applied for.

TO WHOM PAID.	DEPARTMENT.	SERVICE.	AMOUNT. £.	s.	d.
Henry Wm. Hewlett	England and Wales	For searches in relation to the Crown's title to the bed and shore of the River Thames	523	16	–
Capt. G. Evans	Ditto	For services and travelling-expenses relative to Birkenhead Dock Works	20	5	–
Richard Ellis	Ditto	For surveys of mines and quarries in the county of Carnarvon	2	16	–
Marcus W. T. Scott	Ditto	For examining plans, &c. relative to the sea-shore at Llanelly, in conjunction with the solicitors	10	10	–
Walker and Burgess	Ditto	Survey of Braye Harbour, Isle of Alderney	29	8	–
Philip Hardwick	Ditto	Valuation of property, part of the Savoy estate	21	–	–
John Provis	Ditto	Surveys of Crown lands in Wales	8	18	6
Edmund Scott Barber	Ditto	Survey and terrier of encroachments on the shore of the River Usk (Monmouth)	15	–	–
Horatio Dennett	Ditto	Surveying and mapping Carisbrooke Castle, and lands lately purchased by the Crown	3	3	–
John Jones	Ditto	Various surveys of Crown lands in Wales relative to management	177	17	6
Ditto	Ditto	Valuation and plan of allotment in Discoed Hills, parish of Presteigne (Radnor)	4	16	–
John Provis	Ditto	Various surveys, &c. in Wales	9	9	–
John Clutton	Ditto	Survey and reports as to the eligibility of planting several portions of Richmond Park	7	17	6
John Provis	Ditto	Survey of Mudland, at Holyhead	4	4	–
Philip Hardwick	Ditto	Surveying property, No. 1, Osnaburgh-street; examining plans, and reporting on proposed alterations	10	10	–
James Boydell	Ditto	Survey of encroachments on the River Dee	6	6	–
Capt. G. Evans	Ditto	Report relative to the proposed alterations of the plans of Birkenhead Docks, &c.	36	10	–
Thomas Page	Ditto	Professional services and expenses relative to references made by Corporation of London, for works on the bed of the River Thames	50	8	–
John Clutton	Ditto	For drawings, specifications, and estimates for premises at Winterhouse Farm (Esher)	27	19	5
Josiah Parkes	Ditto	Report on drainage of Great Park Farm (Isle of Wight), including expenses	15	–	–
Ditto	Ditto	Survey and report with reference to the drainage of Windsor Great Park (including expenses)	45	2	8
John William Wilkin	Ditto	Commission, &c. on an encroachment in Wales, in the year 1851–2 (including expenses)	123	16	5
Ditto	Ditto	Agreements entered into in the year 1851–2	2	10	–
W. Thomas Atwood	Ditto	Report of value of a piece of land on Richmond Green	2	2	–
John Higgins	Ditto	Inspection of various estimates, reports, and expenses	19	6	4
John Jones	Ditto	For various surveys in Wales	48	19	–
Josiah Parkes	Ditto	Survey of Woodhouse Grange estate	13	8	6
Ditto	Ditto	Survey of Thornton Briggs estate	13	8	6
James Beadel	Ditto	Valuation and report on the three Crown farms of Stapleford Abbotts, county Sussex	24	13	5
George Smith	Scotland	Report, valuation, &c. of the alveus of the Tay, at Dundee	28	11	–
Kenneth M'Leay	Ditto	Balance of charges for surveys and reports as to the rights of salmon-fishery	60	16	10
George Smith	Ditto	Surveys, valuations, reports, &c., respecting the shore ground of the River Tay at Dundee, &c. &c.	19	10	–
Robert Forsyth	Ditto	For making plans and sections of the Crown lands, &c., at Scrabster, Lythmore, and Stempster, Caithness	8	2	–
Robert Barlas	Ditto	Plans and survey of Crown farm at Stirling	12	1	6
Ditto	Ditto	Survey, plans, report, &c., &c., of Crown lands in Caithness	124	7	4
S. Y. M'Culloch	Ditto	Survey and report on two islands in Cambre, &c.	4	15	5
James Caird	Ditto	Surveys, reports, &c., between 29 January 1852, and 16 November 1852	215	11	10
C. P. Brassington	Ireland	Bills for surveys, &c.	65	19	6
Ditto	Ditto	Surveys, plans, &c., relative to land revenue of Ireland in 1851, 1852	51	19	–
S. Y. M'Culloch	Ditto	Survey, &c., of lands at Kilconcouse, &c., in Ireland	19	1	4
Ditto	Ditto	On account of expenses on inspecting the Crown estates of King Williamstown, Cork, and Irvilloughtragh, Galway	30	–	–

TO WHOM PAID.	DEPARTMENT.	SERVICE.	AMOUNT. £. s. d.
Charles Graham (Sec. of Lloyd's).	Woods, Forests, &c.	For services of Mr. Martin in survey of timber felled in Dean Forest and Highmeadow Woods - - -	85 18 –
James Caird - -	Ditto - -	Time and expenses in examination of the New Forest -	11 15 –
Ditto - - -	Ditto - -	Ditto - - ditto - - of Alice Holt Forest - -	5 17 6
Thomas Sopwith -	Ditto - -	Professional services connected with the mines in Dean Forest, in 1851 - - - - - - - - - -	130 4 –
Clutton and Driver -	Ditto - -	Their charges relative to the sale of timber, &c., on a portion of the King's Woods in Hainault Forest - -	925 17 3
Ditto - - -	Ditto - -	For valuation of the timber on Sir Charles Hulse's allotment in Hainault Forest - - - - - - -	49 14 9
Thomas Sopwith -	Ditto - -	Professional services connected with the mines in Dean Forest, in 1852 - - - - - - - - -	124 10 –

No. 9.

11,412.—10/6.)

Sir, Treasury Chambers, 9 June, 1853.

I AM commanded by the Lords Commissioners of Her Majesty's Treasury to acquaint you, in reply to your letter of the 23d April last, forwarded with your communication of the 28th ultimo, that my Lords have observed with regret that you have thought it fit, in consequence of the letter from this Board of the 15th April last, to enter into a vindication of the views which you have formed, in reference to a great and fundamental change proposed by you with regard to the principle on which the management of the forests has heretofore been conducted, and to imply a threat of the resignation of your office, and of an appeal to Parliament and the public, if you are not supported in those views; and their Lordships must further express their surprise at your having written in these terms, when they reflect that you are all the time well aware that they have not as yet expressed any opinion on the important questions under discussion, but that those questions are at present receiving the most anxious consideration of this Board. My Lords have no other remark to make, in reference to such a line of observation, than that it will be their duty, in the exercise of the control which Parliament has vested in them over the administration of the Woods and Forests Department, to decide upon the expediency of adopting or rejecting your recommendations, and to incur the responsibility of their decision.

My letter, however, which has been the occasion of your remarks, has no bearing on the merits of the plans, still under the consideration of their Lordships, which have been proposed by Mr. Brown and recommended for adoption by you. It referred to the general question of the manner in which charges of a contingent character, for the payment of which the sanction of this Board is required, should be submitted to their consideration, and expressed dissent from a suggestion made by you, which would have left you practically at liberty to employ whom you pleased, on whatever service you thought desirable, without the cognizance of this Board, and without any check, therefore, over the expenditure or the course of your proceedings. In connexion with this general subject, it adverted to an irregularity which had occurred in the employment of Mr. Brown on services connected with the forests without their Lordships' previous sanction.

It is no answer to this imputation of irregularity to cite advantages anticipated from the aid afforded by Mr. Brown, even if they could be referred to with any propriety in the light of advantages already realized; nor to quote examples of increased income derived from the forests, even if that increase could be taken as an indication of what may be expected from future management, instead of being the result (as you fairly admit) of past management. But while my Lords feel called upon to make these observations, they would wish to be understood as not expressing any opinion, one way or the other, on the merits of the various Reports made by Mr. Brown. The real question raised by this Board was, whether any emergency existed to warrant you in engaging Mr. Brown on this service, without a previous reference to this Board. You have failed to establish such a plea of emergency: on the contrary, it clearly appears that, during the time when you were meditating on the expediency of recurring to the advice of Mr. Brown in the management of Dean Forest, you had ample opportunity for consultation with their Lordships or their secretary.

My Lords, indeed, expressed their opinion that, if such a course of co-operation had been followed by you, difficulties which they feel in dealing with the reports of Mr. Brown might have been avoided. They not only adhere to their opinion, but must add, that further experience and consideration have confirmed them in the apprehension, that from the mode in which this service has been undertaken, any advantages which might have been hoped for from the professional advice of a person of Mr. Brown's acknowledged ability, will be of less certain attainment.

The views which their Lordships have formed regarding the proper course for the Commissioners of Woods to follow in such cases, would not be affected by any examples which you might be able to adduce, of charges of a similar character having been suffered to pass on former occasions without notice by this Board; but they must observe, that the table

Employment of Mr. Brown.

appended to your letter does not support the conclusion for which you contend, that in employing Mr. Brown on this special service on your own responsibility, you have only followed the practice usually observed by your predecessors. The great majority of the payments referred to in this list are for those preliminary surveys which the Commissioners of Woods are bound by Act of Parliament to institute as the ground of recommendation to this Board. The payments to Mr. Caird and Mr. M'Culloch partake also of this character; the largest payment, viz., that to Messrs. Clutton and Driver, for services in connexion with the disafforesting of Hainault Forest, was necessary to enable you to perform duties for which you were responsible under a special Act of Parliament. The only payment in the list which bears any analogy to the employment of a professional person on duties connected with the forests, for conducting which a fixed establishment is provided, is that to "Mr. Charles Graham (Secretary to Lloyd's) for services of Mr. Martin in survey of "timber felled in Dean Forest and Highmeadow." You, yourself, in submitting a second payment of this description in the schedule of cash payments for the month of March, 1853, made the following observation:

"I am of opinion that, in both cases, the better course would have been to seek the pre-"vious sanction of the Treasury."

My Lords may, however, dismiss this part of the subject without further remark, as they observe with satisfaction that you state in the conclusion of your letter, that you are contending for no principle, and they trust therefore that the course which they have laid down for your guidance in regard to services of a special character, will be in future observed.

I remain, &c.
(signed) *James Wilson.*

The Right Honourable T. F. Kennedy.

No. 10.

Sir, Arniston, 19 December, 1853.

I ARRIVED safely here from the North on Saturday evening, and have been favoured with your letter of the 17th, this morning.

I have read over Sir James Campbell's Report regarding Bere and Parkhurst Forests. It is only what I expected from him, in the same spirit of opposition to improvement which characterizes all the other deputy-surveyors. I hope, however, in a short time, to clear up the subject in my Report, in answer.

I may at present mention that, some time ago, I found I could not attend to Mr. Dundas' business; and to that of other parties at the same time, and consequently gave the entire management of this property into the hands of the person appointed to succeed me, with the understanding that I was to occupy the house in which I live till the 1st of January. As the person who has succeeded me proposes to get married about the 1st of January, and to occupy the house I am now in, it will be necessary for me to leave it at that time, and to take up house elsewhere.

I am, however, glad to say that I have more work than I can undertake at 4 guineas per day; and, as I do not see there is much likelihood of my being called to Dean Forest for some time yet, I am disposed to go and live in Edinburgh.

At the same time, I may mention that I have another situation in view, with emoluments equal to those attached to the office of deputy-surveyor of Dean Forest, and which I could enter upon in spring.

From these remarks you will learn that, owing to the question of the Forest of Dean not being settled, I cannot pursue my business with that degree of arrangement which is necessary; were it settled that my services were not wanted for the Forest of Dean, I could at once enter upon a new field; or, on the other hand, if I were certain that my services were to be wanted soon in the Royal forests, I could calculate how far I should go in other business I have been requested to take part in.

I have also to remark that, on consideration of the prospects I have, I would not now be disposed to devote my services exclusively to the Royal forests for the sum I would have accepted six months ago.

I shall be glad to have your opinion on this subject; because, for the sake of my family, if the question of Dean Forest be not arranged soon, I will be compelled to accept of permanent employment in another field.

Now that I have returned, I will not delay in drawing up my Report on the subject of the felling of timber in the New Forest.

I have, &c.
The Right Honourable T. F. Kennedy. (signed) *James Brown.*

Employment of Mr. Brown.

No. 11.

(Immediate).

Dear Sir, Office of Woods, &c., 21 December, 1853.

I THINK I ought to lose no time in transmitting to you a copy of a letter dated the 19th December, which I have this day received from Mr. Brown, whose Reports on the Royal Forests have been under your consideration. It is intended by him to be a private letter, but there can be no impropriety in my making a public use of it; and I feel certain that you will at once see the importance of its contents.

It appears that if it should be the desire of the Treasury to procure Mr. Brown's services for the public, there is a considerable risk of losing him, owing to the high and increasing value which is placed upon his services by private parties. When I first employed him, his terms were two guineas a day with his expenses; and I am not aware that he has yet raised those rates as respects services performed for me; but it appears that he has raised his rate to private parties to four guineas a day; and that the demand upon his time is very great. Having communicated to me the circumstances in which he is now placed, I think I am bound to lay them before you at the earliest moment; but I will forbear from making any statement of my opinion in detail, of the vast importance of his services being secured without loss of time for the benefit of the public service.

I annex a copy of the whole of his letter, although it incidentally alludes to several separate subjects.

I have, &c.

The Right Hon. (signed) *T. F. Kennedy.*
the Chancellor of the Exchequer.

No. 12.

Sir, Arniston, 2 January, 1854.

I HAVE arranged with the person who has succeeded me, to allow me to remain in the house along with him till I see how I am to be settled in respect to my future prospects; my address will, therefore, be as formerly, till some definite arrangement takes place. It would have been troublesome and inconvenient for me to have removed my family at this time of the year under any temporary arrangement.

I am to-day in receipt of a letter from the party who wish me to undertake the management of an extensive property on the same footing that I have done the Arniston estate, inquiring if I can yet give them any decided reply to their proposal. I have written, saying, that I will give a decided answer on the 9th; I am, therefore, now compelled to say, that if the Treasury do not decide this week respecting the management of Dean Forest, it will not be in my power to attend to their wishes in that respect afterwards. The time has now arrived which compels me to enter into an engagement with either one party or another.

I am at present engaged in writing my Report on Sir James Campbell's, in reference to Bere and Parkhurst Forests, which I expect to have finished by the middle of this week, and hope to have a copy in readiness for you by the middle of the week following.

I hope to have my Report on the bark question in Dean Forest sent to you this week.

I have, &c.

The Right Hon T. F. Kennedy. (signed) *James Brown.*

No. 13.

Sir, Office of Woods, &c., 5 January, 1854.

IN the absence of Mr. Wilson from town, I find myself compelled to trouble you by sending a copy of the annexed letter, received only last night, owing to the detention of the mails, from Mr. Brown, the contents rendering it indispensable that an instant reply should be sent to him, unless his services are to be irrevocably lost in the affairs of the Royal forests.

What I would request is, your authority to write by this post to Mr. Brown, to request his immediate presence in London, to adjust the terms on which his services may be secured for the public benefit. I request your authority in this respect, because it is the step which I proposed to Mr. Wilson that I should take, as preliminary to an arrangement; and it will prevent Mr. Brown making an immediate engagement elsewhere, as stated in his letter.

Employment of Mr. Brown.

On the 24th of December, Mr. Wilson desired to see me at the Treasury, and stated to me that you had placed in his hands my letter, addressed on the 19th to you on this subject, and stated to me that you had "desired him to act upon it." A long conversation ensued, which created a distinct and decided impression on my mind, that Mr. Brown's services were not to be lost to the public, and that he was to be engaged on some footing in relation to the Royal forests; but Mr. Wilson stated to me, that he would make a written communication to me, after a few days' holidays, early in the week, and I hoped a week ago to have received such communication.

Mr. Wilson, at the same time, requested me not to intimate, in the interval, to Mr. Brown, the impression which had been made on my mind as to his being engaged, or not, for the Crown, at my interview with him, and to this I, as a matter of course, assented. Thus, on the 24th of December, I considered the matter practically settled (although not the conditions and terms of the arrangement), and I should deeply regret if delay were to bring about an entirely opposite result.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Hon.
the Chancellor of the Exchequer.

No. 14.

My dear Sir, Treasury Chambers, 7 January, 1854.

I AM extremely sorry to trouble you again; but I will thank you to step over here, in reference to the steps to be taken in regard to Mr. Brown.

I am, &c.
(signed) *James Wilson.*

The Right Honourable T. F. Kennedy.

No. 15.

Sir, Treasury, 7 January, 1854, 6 P. M.

I ENCLOSE a memorandum which has this moment been given to me by Mr. Wilson, and request that you will come to town on as early a day as may be in your power. I hope that you may be disposed to accept the proposal, of which the enclosed is an outline, and it will be more fully considered on your arrival; at present, I write in great haste to save this post.

That part of the memorandum enclosed, which relates to the tenure of the office, means no more than the same which you yourself have recommended, that of satisfaction to both parties.

Faithfully yours,
(signed) *T. F. Kennedy.*

Be so good as to preserve this letter, as I have no copy.

Mr. James Brown.

(Enclosure.)

MEMORANDUM for Mr. *Kennedy.*

MR. KENNEDY having represented to the Treasury the urgency of immediately appointing a successor to Mr. Machen, as deputy-surveyor in the Forest of Dean, and that he considers the appointment of Mr. Brown to that office as absolutely essential to the good management of that property, he is authorized to write to him to the effect that the Treasury are willing to appoint him,

1. On the distinct understanding that, in so doing, they are not to be supposed in any way to prejudge the various points now in controversy between Mr. Brown and the different deputy-surveyors, as to forest management; but that, with respect thereto, when those questions shall be ripe for decision, the Treasury shall be at perfect liberty to take any course which seems to them the most fitting, according to their judgment, in respect to those questions.

2. That the salary of 350 *l.* shall be increased to 450 *l.*, in consideration of Mr. Brown occupying a house considered to be worth 30 *l.* a year, in place of that now occupied by Mr. Machen, which, it is expected, will let for 130 *l.* a year.

3. That

3. That Mr. Brown's appointment shall be distinctly understood to be during pleasure; and that if from any cause the Treasury desire to dispense with his services, they shall be at liberty to do so without any claim for compensation on his part. Employment of Mr. Brown.

7 January, 1854.

No. 16.

Dear Sir, Treasury Chambers, 9 January, 1854.

I DO not return to town till Saturday. It will be better if Mr. Brown comes to town, that he should not do so till that day.

I am, &c.

The Right Honourable T. F. Kennedy. (signed) *James Wilson.*

No. 17,

Sir, Office of Woods, &c., 12 January, 1854.

I BEG leave to acquaint you, that late yesterday evening I received a letter from Mr. Brown, informing me that he had received my letter of the 7th, enclosing to him your memorandum on the subject of his being appointed deputy-surveyor of Dean Forest; and that being engaged to go into Ayrshire on Tuesday last, on the business of the Duc de Coigny, it was not in his power to proceed to London as speedily as he would otherwise have done, but that he should be in town at the close of the week. I shall thus be enabled to communicate to you Mr. Brown's answer at an early period.

I am, &c.

James Wilson, Esq., M.P. (signed) *T. F. Kennedy.*

No. 18.

Sir, London, 14 January, 1854.

I BEG to acknowledge the receipt of your letter of the 7th, requesting me to come to town on as early a day as might be in my power; and enclosing Treasury memorandum of the same date, authorizing you to write to me to the effect that the Treasury are willing to appoint me as deputy-surveyor of Dean Forest, in the place of Mr. Machen.

In reply, I have to state that the engagements which I had on hand previous to receiving your letter of the 7th, have prevented me from waiting on you sooner; but I now write to say that I accept the appointment of deputy-surveyor of Dean Forest and Highmeadow Woods, on the conditions that my salary shall be 450*l.* per annum, with the Speechhouse as my residence, including the offices and land attached thereto (which have been let at 30*l.* a year), and that I shall have the travelling-expenses of myself, family, and baggage paid from Arniston to the Forest, for which I should name the sum of 25*l.*

In the Treasury memorandum which has been sent to me, it is stated that it shall be distinctly understood that the appointment shall be "during pleasure," and that if, at a future time, it may be considered proper to dispense with my services, it shall be competent to do so, without any claim for compensation on my part. I can have no hesitation in at once agreeing to this condition, which I think is in all respects perfectly proper, inasmuch as it is the condition which I have myself recommended in other cases.

I have, &c.

The Right Hon. T. F. Kennedy. (signed) *James Brown.*

No. 19.

Sir, Office of Woods, &c., 14 January, 1854.

REFERRING to my letter addressed to you on the 12th, I beg leave to acquaint you that Mr. Brown has arrived in town, and on the subject of your memorandum of the 7th, which I transmitted to him, with the note from myself which I read to you on that day, has addressed to me a letter dated this day, of which I beg to annex a copy for your information.

You will perceive that Mr. Brown accepts the proposal made to him to fill the office of deputy-surveyor of Dean Forest and Highmeadow Woods, on the tenure of office proposed, at a salary of 450*l.* per annum, with the Speechhouse and premises attached, which have hitherto been let at 30*l.* per annum, as a residence. There will be the usual allowance to

Employment of Mr. Brown.

all deputy-surveyors of a labourer, and the keep of two horses, as in the case of the New Forest, but no perquisite of any kind.

I am disposed to recommend that, as in the case of Chopwell Woods, no formal appointment should be issued, which in truth is inapplicable to a yearly servant; but that I should receive a letter written by the command of the Lords Commissioners of Her Majesty's Treasury, authorizing me to employ Mr. Brown as deputy-surveyor, or superintendent, of Dean Forest and Highmeadow Woods; and to take a bond in security for his pecuniary intromissions, with two sureties for proper sums.

I have asked Mr. Brown at how early a period he can enter upon his duties, and he names a time not later than the 1st of March, a point which I consider to be of the utmost importance in reference to the present state of affairs in Dean Forest, and with a view to release Mr. Machen from those duties of which he so much desires to be relieved. Mr. Brown will not leave town until I am favoured with a reply to this letter.

I am, &c.

James Wilson, Esq., M.P. (signed) *T. F. Kennedy.*

No. 20.

My Lords, Office of Woods, &c., 14 January, 1854.

I BEG leave to request that I may receive your Lordships' authority to pay to Mr. James Brown the amount of his accounts for services performed to the 31st of March 1853, transmitted with my Report to your Lordships of the 11th day of April 1853, the sum being 291*l.* 6*s.* 11*d.* (under deduction of 50*l.* already paid). Mr. Brown being at present in London, it will be a convenience to him to receive this payment previously to leaving town.

Mr. Brown has not yet sent in his account for other services performed subsequently to the 31st of March to the present time; but I shall instruct him to do so, so soon as he shall have made two Reports relative to Bere and Parkhurst, and Alice Holt and Woolmer Forests, which will complete his services of this description.

I have, &c.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury. (signed) *T. F. Kennedy.*

No. 21.

Sir, Treasury Chambers, 18 January, 1854.

I AM directed by the Lords Commissioners of Her Majesty's Treasury to transmit to you herewith, copy of their Lordships' minute, dated the 10th instant, relative to the appointment of Mr. Brown to succeed Mr. Machen as deputy-surveyor of the Forest of Dean; and I have to authorize you to ascertain from Mr. Brown if he is ready to accept the situation on the terms specified therein.

I have, at the same time, to request that a copy of the said minute may be furnished as early as possible to Sir James Campbell, Mr. Higinbothom, and Mr. Clutton, in order that the course now taken by my Lords may not be misunderstood so far as they are concerned.

I am, &c.

The Right Honourable T. F. Kennedy. (signed) *James Wilson.*

(Enclosure.)

Copy of Treasury Minute, dated 10th January 1854.

THE Chancellor of the Exchequer states to the Board that he has had various communications with Mr. Kennedy, a Commissioner of Woods, &c. on the subject of the appointment of a successor to Mr. Machen, as deputy-surveyor of the Forest of Dean, during which Mr. Kennedy has urged the absolute necessity of immediately releasing Mr. Machen of the duties of the office, as it is several months since he expressed his desire to resign, and has now left his official residence. Mr. Kennedy has further stated that he considers the appointment of Mr. Brown, as Mr. Machen's successor, to be absolutely essential to the good management and the interests of the Crown property in the Forest of Dean; that Mr. Kennedy has placed his wishes in this respect so strongly, as to state that he should consider himself relieved of the responsibility of the management, if his recommendation in this respect were not complied with. Mr. Kennedy has further stated that the time has now come when a decision upon this question can no longer be postponed in one way or other; inasmuch as Mr. Brown, knowing that he had been recommended for the office, has, after waiting for some time for definite information thereon, placed himself in such a position in relation

relation to another arrangement, as would render it impossible for him to accept any appointment under the Crown after the 9th instant. The Chancellor of the Exchequer states that, looking to the controversies which are at present pending between Mr. Brown and the officers of the different forests of the Crown, in relation to their management, and arising out of Reports made by Mr. Brown in reference thereto, he feels that, under such circumstances, an unconditional compliance with the recommendation of the Head of the Department, which otherwise he might have unhesitatingly recommended, would prove an act of injustice towards those other officers who are engaged in the pending controversy, by the appearance which it would undoubtedly have, that the Lords of the Treasury had arrived at a decision in favour both of the views entertained by Mr. Brown, and of the accuracy of his statements on the points disputed, and against those of the other officers in question, which is, therefore, a course which ought not to be adopted. Employment of Mr. Brown.

The Chancellor of the Exchequer states that, in consequence of this position of affairs, he would have greatly preferred to have postponed any decision upon the appointment of Mr. Brown until the pending controversies had been concluded; but, seeing that from the circumstances herein referred to, such cannot be done, and looking to the light in which Mr. Kennedy has placed the necessity of his possessing the services of Mr. Brown, the Chancellor of the Exchequer is prepared to recommend to the Board, upon a view of the whole case, that Mr. Brown may be appointed on the following conditions and understanding:—

1. That it is distinctly understood that, in making the appointment, that the Lords of the Treasury do not in any way whatever wish it to be inferred that they prejudge those questions of controversy now pending between Mr. Brown and other officers of the Crown, in relation to forest management; but that they shall be at full liberty to take any steps whatever in relation to those disputes, when they shall have arrived at that stage when their Lordships may be able to form a mature judgment upon their merits.

2. That Mr. Brown's salary shall be 350*l.* a year, with an allowance of 100*l.* a year in addition, in consideration of his occupying a house the value of which is 30*l.* a year, in place of the residence hitherto occupied by Mr. Machen, which Mr. Kennedy states can be let for 130*l.* a year.

3. That the appointment of Mr. Brown shall be "during pleasure," with a distinct understanding that my Lords may dispense with his services at any time they please, without any claim for compensation on his part; and especially that my Lords hold themselves at liberty to review the appointment when the controversies already alluded to shall have been concluded, in accordance with the decision in relation thereto at which they may then arrive.

My Lords are pleased to express their entire concurrence in the course proposed by the Chancellor of the Exchequer.

No. 22.

Sir, London, 18 January, 1854.

I HAVE read a letter addressed to you by command of the Treasury, in which is enclosed a minute of their Lordships, dated the 10th of January, and I observe that you are authorized to ascertain from me, whether I am ready to accept the situation of deputy-surveyor of Dean Forest on the terms specified in that minute.

In reply, I beg that you will state to their Lordships, that I accept of the situation of deputy-surveyor of Dean Forest on the terms specified in their Lordships' minute of the 10th January.

I have, &c.
(signed) *James Brown.*

The Right Honourable T. F. Kennedy.

No. 23.

Sir, Office of Woods, &c., 18 January, 1854.

I HAVE to acknowledge the receipt of your letter of this day's date, enclosing for my information a copy of a minute of the Lords Commissioners of Her Majesty's Treasury, dated the 10th, relative to the appointment of Mr. Brown, to succeed Mr. Machen as the deputy-surveyor of the Forest of Dean, and authorizing me to ascertain from Mr. Brown if he is ready to accept the situation on the terms specified therein.

In reply, I beg leave to enclose for their Lordships' information a letter addressed to me by Mr. Brown, in his own handwriting, in which he states distinctly, that he accepts the

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situation of deputy-surveyor of Dean Forest on the terms specified in their Lordships' minute of the 10th of January.

I am, &c.

James Wilson, Esq., M.P. (signed) *T. F. Kennedy.*

No. 24.

Sir, Treasury Chambers, 18 January, 1854.

I AM directed by the Lords Commissioners of Her Majesty's Treasury to acquaint you, that my Lords have had under their consideration your letter of the 14th instant, on the subject of the appointment of Mr. Brown as deputy-surveyor of the Forest of Dean, and enclosing copy of a letter from Mr. Brown, stating that he is willing to accept that appointment on certain terms.

I have to refer you to the minute of this Board of 10th inst., which states the circumstances and the conditions on which my Lords were prepared to appoint Mr. Brown. In that minute, my Lords considered it to be their duty, in justice to the different parties to the controversy which has arisen between Mr. Brown and other officers now engaged under the Crown, to state, that the course which they were ready to take, under the peculiar emergency represented by you, must not be considered to prejudge in any way the merits of those disputes, but must be considered to be subject to any decision at which, after mature consideration and inquiry, their Lordships may arrive in respect thereto. My Lords think it necessary to refer to this portion of their minute, because Mr. Brown, in his letter to you, when referring to the circumstance that his appointment shall be understood to be "during pleasure," and that the Treasury may at any time dispense with his services without involving a claim for compensation, accepts of that condition on the general grounds, that he had recommended the same course in other cases, and is entirely silent upon that point in the memorandum handed to him, which refers to the subject of the pending controversies. In order to prevent any misunderstanding on this point, my Lords think it proper again to state, that they cannot regard the permanent appointment of Mr. Brown but as subject to the result of those controversies.

There is a point in Mr. Brown's letter to which my Lords must advert. He accepts the appointment, subject to the payment of his expenses in removing himself and family from Scotland to Dean Forest; I have to state, that such an allowance being contrary to the practice in such cases, my Lords are unable to assent to it.

I am to add that, under the circumstances of the case, my Lords concur with you, that no formal appointment of Mr. Brown can be made in the usual way; but they are pleased to authorize you to employ Mr. Brown as deputy-surveyor of the Forest of Dean on the terms named in his letter as to remuneration, and subject to the conditions contained herein, and in their Lordships' minute of 10th inst., upon your taking bond, as suggested by you, for his pecuniary intromissions.

I have also to state that, as Mr. Machen is desirous of being relieved as early as possible, the employment of Mr. Brown should commence as early as convenient.

I am, &c.

(signed) *James Wilson.*

The Right Hon. T. F. Kennedy.

No. 25.

Sir, Office of Woods, &c., 19 January, 1854.

I HAVE now to annex, for your information, copy of a letter from Mr. Wilson, dated the 18th of January, transmitting to me a copy of a minute of the Lords Commissioners of Her Majesty's Treasury of the 10th of January, on the subject of your appointment to succeed Mr. Machen as deputy-surveyor of the Forest of Dean, which letter and minute were perused by you yesterday, on their receipt in this office. I also enclose copy of a letter which you addressed to me immediately on perusal of these documents, dated the 18th of January, by which you accepted the situation of deputy-surveyor of Dean Forest on the terms specified in their Lordships' minute of the 10th of January; and I also annex, for your information, copy of a letter which I addressed to Mr. Wilson, enclosing your original letter of acceptance; and I further annex, for your information, copy of a letter addressed to me by Mr. Wilson, of the 18th of January, received by me after you left this office, from which you will perceive that I am authorized by the Lords Commissioners of Her Majesty's Treasury to engage you as deputy-surveyor of the Forest of Dean, on the terms named in your letter of the 14th as to remuneration, and subject to the conditions contained in their Lordships' letter of the 18th, and minute of the 10th January, upon my taking bond, as suggested by me, for your pecuniary intromissions.

In pursuance, therefore, of the authority conveyed to me, I hereby engage you as deputy-surveyor of Dean Forest and Highmeadow Woods, and shall be glad if you can enter upon your

your duties at an early period, and which, from what you have personally stated to me, I hope may be not later than the first week of March next. Employment of Mr. Brown.

With respect to the observation of their Lordships, on the subject of my recommendation that no formal appointment should be made, I wish to state to you that, although I consider your appointment to Dean Forest to be one of far greater importance than that of Mr. Thomson to Chopwell Woods, yet that I consider the manner of Mr. Thomson's appointment to be a great improvement upon the past system; and, therefore, I recommended that your appointment should be made on a similar footing, and the Lords Commissioners of Her Majesty's Treasury have been pleased to approve of this recommendation, which is entirely in accordance with your own opinion expressed on the case of Mr. Thomson's appointment, and in your recent letter addressed to me on the 14th of January.

On the subject of your bond in security with two sureties, I will direct a draft of such bond to be prepared for your inspection, and in a future communication I will propose the specific sums which shall be inserted in the bond for yourself and each of your sureties.

I am, &c.

Mr. James Brown. (signed) *T. F. Kenneay.*

No. 26.

(Circular.)

Sir, Office of Woods, &c., 21 January, 1854.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests to state to you, that, at the request of the Lords Commissioners of Her Majesty's Treasury, the Commissioner transmits for your information copy of a minute of their Lordships, of the 10th of January, which is annexed hereto.

I am, &c.

John Clutton, Esq. (signed) *G. S. Bedford.*

(*a*)

A similar letter to

Sir James Campbell, Bere and Parkhurst Forests.

(*b*)

N. Higinbothom, Esq., Alice Holt and Woolmer Forests.

No. 27.

My Lords, Office of Woods, &c., 23 January, 1854.

I BEG leave to acknowledge the receipt of a second letter, written by command of your Lordships on the 18th of January, on the subject of Mr. Brown's appointment as deputy-surveyor of Dean Forest, in the conclusion of which it is stated, that "under the circumstances of the case my Lords concur with you, that no formal appointment of Mr. Brown can be made in the usual way; but they are pleased to authorize you to employ Mr. Brown as deputy-surveyor of the Forest of Dean, on the terms named in his letter as to remuneration, and subject to the conditions contained herein, and in their Lordships' minute of the 10th instant, upon your taking bond, as suggested by you, for his pecuniary intromissions." I beg leave to acquaint your Lordships that I have fulfilled your Lordships' instructions in the most correct manner I could, by transmitting to Mr. Brown copies of both letters written by command of your Lordships on the 18th of January, and of your Lordships' minute of the 10th of January, so that there shall be no possibility of a misunderstanding, by an omission, on my part, to state correctly your Lordships' views.

I have also engaged Mr. Brown as deputy-surveyor of Dean Forest and Highmeadow Woods, and stated to him that it is desirable that he should enter upon his duties at an early period; and, from what he has stated to me personally, I hope that he may do so not later than the first week of March; but I am aware that he has a considerable pressure of business which he must despatch before he can remove with his family from Scotland. On the subject of the bond in security to be executed by Mr. Brown, I have communicated with him, and he is ready to execute a bond for any reasonable amount, with two sureties of high respectability, and he leaves it to me to name the sums.

On this subject, I have referred to the case of Mr. Machen, which is of an old date, but applies to the same concerns as those for which Mr. Brown will be responsible; and I have also referred to the case of Mr. Cumberbatch, the New Forest and Dean Forest being the only two cases of a magnitude at all similar. Mr. Machen and Mr. Cumberbatch have each executed a bond for 1,000*l.*, with two sureties of 500*l.* each; and, if your Lordships

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shall be of opinion that these sums are sufficient, I should propose that Mr. Brown's bond shall be for similar amounts; but my own impression is, while I entertain the highest opinion of Mr. Brown's integrity and fidelity, that the amounts are inadequate, and I should say that a bond for 2,000*l.*, with two sureties of 1,000*l.* each, would be more suitable to the large transactions which pass through the hands of the deputy-surveyor of Dean Forest and New Forest; and, if I shall name these larger sums, Mr. Brown has stated to me that he has no objection whatever. I may state to your Lordships that, as in all the forests, so in Dean Forest, the accounts are monthly; and, consequently, there is a monthly check on the balances; but still, in single months, large balances may arise, and sufficient security ought to exist for such temporary balances. I see that, during twelve recent months, the highest balance on the accounts of the deputy-surveyor of Dean and New Forest has been, in the former, 6,409*l.* 9*s.* 5*d.*, and in the latter, 7,937*l.* 14*s.* 4*d.*; and this fact will enable your Lordships to issue to me the instructions which you may decide to be suitable to the circumstances.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Hon. the Lords Commissioners of Her Majesty's Treasury.

No. 28.

Sir, Treasury Chambers, 3 February, 1854.

I AM directed by the Lords Commissioners of Her Majesty's Treasury to acquaint you, that my Lords are pleased to approve of the proceedings proposed by you in your letter of the 23d ultimo, with respect to the security to be required from Mr. Brown, as deputy-surveyor of Dean Forest.

I am, &c.
(signed) *James Wilson.*

The Right Hon. T. F. Kennedy.

(1,108.—17/2.) No. 29.

Sir, Treasury Chambers, 23 February, 1854.

I AM commanded by the Lords Commissioners of Her Majesty's Treasury to acquaint you, that my Lords are pleased, in compliance with the recommendation contained in your letter of the 14th ultimo, to sanction the payment to Mr. Brown of the amount of his accounts for services performed to 31st March 1853, viz., 291*l.* 6*s.* 11*d.*, from which, however, is to be deducted the sum of 50*l.* already issued to Mr. Brown.

I remain, &c.
(signed) *James Wilson.*

The Right Hon. T. F. Kennedy.

DEAN FOREST.

MR. BROWN'S AND MR. CLUTTON'S REPORTS.

NO.	DATE.	——	SUBJECT.	PAGE.
1	1853: 5 April -	To Treasury - -	That Mr. Brown's Reports were sent to Mr. Clutton, as desired, for his observations.	42
2	28 May -	- - - -	Report by Mr. Clutton thereon - - - -	42
3	30 - -	Report to Treasury	Transmitting same - - - - - - - -	58
4	31 - -	To J. Clutton -	Inquiring whether he had submitted his Report to any other person.	58
5	31 - -	From ditto - -	In reply - - - - - - - - - -	58
6	7 June -	Treasury Letter -	Returning Mr. Clutton's Report, and directing that it may be submitted to Mr. Brown, for his Remarks.	59
7	8 - -	To Mr. Brown -	With Copy Treasury Letter of 7th instant, and stating that a Copy of Mr. Clutton's Report will be made with all despatch, and transmitted to him.	59
8	9 - -	To ditto - -	Transmitting Copy of Mr. Clutton's Report - -	59
9	10 - -	Treasury Letter -	Calling attention to the conduct of one of the Woodmen recently appointed (as reported by Mr. Clutton), sawing off Branches of young Trees.	60
10	13 - -	To E. Machen -	Relative to the Complaint against Gorrie, the Woodman, and inquiring as to the facts of the case.	60
11	13 - -	To James Gorrie -	For an explanation of his conduct - - - -	61
12	14 - -	From ditto - -	In reply - - - - - - - - - -	61
13	15 - -	From E. Machen -	Report relative to the Charge against Gorrie - - (One Enclosure.)	61
14	16 - -	Report to Treasury	Report as to steps taken for Inquiry relative to James Gorrie, with Eight Enclosures attached thereto.	62
15	17 - -	Ditto - - -	With Mr. Machen's and Gorrie's Explanations - -	64
16	17 - -	To J. Brown - -	With Copy of the Correspondence as to the Charge against Gorrie.	65
17	21 - -	Report to Treasury	With Copy of Mr. Clutton's Report of 28th May -	65
18	21 - -	Treasury Letter -	Further relative to the conduct of Gorrie - - -	65
19	22 - -	To E. Machen -	Ditto - - - - - ditto - - - - - -	66
20	28 - -	From ditto - -	As to his misapprehensions of Instructions to him of 3d and 13th November 1852.	67
21	5 July -	- - - -	Mr. Brown's Report, in Reply to Mr. Clutton's Observations on his Six Reports on Dean Forest.	67
	9 - -	Report to Treasury	Transmitting same - - - - - - - -	78
22	1854: 1 Feb. -	From E. Machen -	Enclosing his Observations on the Thirty-first Report of the Commissioners of Woods, &c., respecting the Management of Dean Forest, &c., and requesting their transmission to the Treasury. (One Enclosure.)	78
23	3 - -	To ditto - -	Declining to forward his Observations to the Treasury, and stating the Commissioner's Reasons for so doing.	81
24	15 - -	From ditto - -	Stating that, in consequence of the Commissioner declining to comply with his request, he had sent a Copy of the Observations to the Treasury, through the medium of a Member of Parliament.	81

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Mr. Brown's and Mr. Clutton's Reports.

NO.	DATE.	——	SUBJECT.	PAGE.
25	1854: 23 Feb. -	From Treasury -	Transmitting Observations by Mr. Machen on the Thirty-first Report of the Commissioners of Her Majesty's Woods, as regards Dean Forest, together with Copy Letter from Mr. Machen to Mr. Kennedy, and of Mr. Kennedy's Reply thereto, for any Observation that Mr. Kennedy may wish to make thereon.	82
26	27 - -	To Treasury - -	In reply, stating that the Commissioner has no wish to make any Observations upon Mr. Machen's Paper, but that if their Lordships should, at any time, desire to have any explanation upon any particular point, he should be happy to afford it to the best of his ability.	82

No. 1.

My Lords, Office of Woods, &c., 5 April, 1853.

I HAVE the honour to acknowledge the receipt of Mr. Wilson's letter of the 29th of March, with reference to certain Reports of mine therein set forth, relating to the Forest of Dean, and to the New Forest, and acquainting me that before my Lords undertake the responsibility of deciding on the recommendations of Mr. Brown, with respect to the management of the Crown plantations, it would be satisfactory to them to obtain the opinion of Mr. Clutton, who has recently inspected the principal forests under the orders of the late Board of Woods, and must, therefore, be fully acquainted with their present condition, and desiring, therefore, that I would refer Mr. Brown's Reports to Mr. Clutton, to obtain, with as little delay as possible, a statement in detail of his views on the several suggestions contained therein.

I annex, for your Lordships' information, copy of a letter which, in obedience to the desire of your Lordships, I have addressed to Mr. Clutton; and I beg leave to state that, in order to save time as much as possible, which at this season in particular is of great importance, I think it will be desirable that, on receipt of Mr. Clutton's Reports, I should at once transmit them to Mr. Brown, for any observations he may have to make; and I will at once take that course, unless your Lordships should intimate to me your desire that I shall transmit them direct to your Lordships before sending them to Mr. Brown.

I am, &c.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury. (signed) *T. F. Kennedy.*

No. 2.

Sir, 8, Whitehall Place, 28 May, 1853.

I HAVE the honour to acknowledge the receipt of your instructions of the 31st of March last, to which you annex, for my information and guidance, a copy of letter, dated 29th March, addressed to you by the command of the Lords Commissioners of Her Majesty's Treasury, directing you to refer to me certain Reports, in order that my views may, with as little delay as possible, be stated on the several suggestions therein contained.

The Lords Commissioners of Her Majesty's Treasury have been pleased to expedite this proceeding by furnishing you with the original papers transmitted to the Treasury. These papers are as follows, viz.:

Papers relating to the New Forest (which I omit here).

Papers on Dean Forest, viz.:

Report from the Commissioners of Woods, &c., to the Treasury, dated 27th November 1852, with Appendices.

A. Instructions by the Commissioner to Mr. Brown, dated 28th June, 1852.

No. 1. Report by Mr. Brown to the Commissioner, dated 18th September, 1852.

No. 2. Ditto - - - - - ditto - - - - dated 1st October, 1852.

No. 3. Ditto - - - - - ditto - - - - dated 13th November, 1852.

Further Report by the Commissioner to the Treasury, with Appendices.

No. 4. Report by Mr. Brown to the Commissioner, dated 30th December, 1852.

No. 5. Ditto - - - - - ditto - - - - dated 7th January, 1853.

No. 6. Ditto - - - - - ditto - - - - dated 13th January, 1853.

Having

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Mr. Brown's and Mr. Clutton's Reports.

Having subsequently received from you an intimation, dated the 5th April, that I should direct my attention to Dean Forest, in the first instance, I confine my present communication to the consideration of the reports and papers referred to me relating to that forest.

I have followed the division adopted by Mr. Brown, and report *seriatim* on the several subjects treated in his Reports; but there are some principal points to which I would, in the first place, desire to direct your attention.

1st. Mr. Brown states that the present average diameter of trees of 40 years of age in Dean Forest scarcely comes up to eight inches, at six feet from the ground; while, in well-managed plantations in the north, where the soil and situation are very inferior to those in the Forest of Dean, the average diameter of oak-trees of the same age is fully nine inches, at the same height, and he comes to the conclusion that the inferiority in size is attributable to defective management.

It is evident that the imputation here conveyed is sustainable only on the assumption that the trees are of 40 years' growth. But, by the statement by the deputy-surveyor, marked A., it appears that the average age is 30 years, and not 40 years; and this statement is confirmed by the several woodmen who have had the charge of the plantations. Taking the present diameter at eight inches for trees of 30 years' growth, it is evident that, by the time the trees reach 40 years' growth, they will at least have attained the diameter prescribed by Mr. Brown, and probably considerably more. In support of the statement that the average age of these trees is 30 years, it may be mentioned that the inclosures first made were done by contract, commencing in 1809, and ending in 1819. The planting was undertaken by nurserymen. By this contract, the land was to be planted with acorns, at four feet apart, and with oak plants of five years' growth, at every 40 feet. But the acorns were almost entirely destroyed by mice and other vermin, and the greater portion of the planted trees afterwards died. The inclosures were mended over with seedling plants from time to time, but in 1821 and 1822 (the steps taken under the contract of 1809, and consequent thereon, being found substantially a failure), it was deemed advisable to plant young trees; and, as appears from information furnished by the deputy-surveyor and his assistants, 2,000,000 oaks were planted in those years, and they required filling up for some years afterwards.

Mr. Brown further states, with reference to the 811 acres of young plantations on the Highmeadow Estate, that it is "in a very flourishing state indeed."

I desire to point out that this plantation (as well as those above mentioned) has been raised by the present officers of the forest, and to add that I am satisfied that the management has been judicious and effective, and that the interests of the Crown have been ably, as well as zealously, protected.

2d. I found, on my recent inspection of the forest, that James Gorrie, one of four woodmen brought from Scotland, (three of them since the date of Mr. Brown's Report) had been appointed to the plantations called Salley Vallets, Buckholt, &c., and had commenced operations by cutting off boughs of oak of four or five inches diameter. Upon expressing my surprise to the deputy-surveyor, he stated that the man acted in defiance of his authority, stating that his instructions are to do what he thinks proper in the plantation under his care. I therefore think it necessary to report the fact, in order that proceedings so entirely opposed both to authority and to good management may be at once checked.

The duties of the deputy-surveyor have not unfrequently been thought to be confined to the management of planting, &c.; but, in truth, the protection of the general interests of the Crown in the forest involves duties of varied and important character. One principal duty, certainly, is to protect the plantations against the commoners, and the circumstances of this district are so peculiar, that the office should be filled by a gentleman of education, who having had some experience in the general management of timber and property, shall also be capable of exercising control and influence in the district. A person so qualified will, as I take the liberty of submitting, make a much more useful public officer than one whose knowledge is limited to the nursery, and the planting and rearing of young trees. It is on record that when the present deputy-surveyor entered on his duties, now nearly 50 years since, the forest had little young timber upon it, and the commoners were under so little control that the mineral rights of the Crown were nearly lost, and its territorial rights seriously encroached on. Under his able and temperate, but firm management, the rights of the Crown have been asserted in every department, and not only have nearly 14,000 acres of inclosure and plantations been made, but from 600 to 700 acres of single trees have been planted, where the powers of the Act did not enable the Crown to enclose further; and he has also aided greatly in bringing out the mineral wealth, now producing an income of 4,000*l.* annually.

It is stated and felt in the district, that these results have mainly arisen from Mr. Machen's high character and perseverance, combined with the strict justice with which he has dealt with the free miners and others having interests adverse to the Crown, both in his office as the direct agent of the Crown, and in his position as a justice of the peace for the county; and, unless a gentleman of ability and general information should succeed him, this valuable property of the Crown may be injured beyond calculation.

The establishment, as it exists, and as it is proposed, may be briefly stated as follows.

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At present, the deputy-surveyor and his two assistants personally superintend all operations, and pay and receive all moneys in the forest, having under them 13 woodmen at 15*s.* a week, and 10 woodmen labourers at 12*s.* a week, the extra work being paid for by task-work.

The proposed arrangement is that the deputy-surveyor and his assistants shall only generally superintend, and that 12 woodmen shall manage the plantations (each controlling his own), and receive and pay moneys, each having 15*s.* a week like the present woodmen, and having under them in all 60 labourers.

I do not think that the responsibility of receiving and paying 5,500*l.* yearly should rest with a class of men receiving 15*s.* a week, as I consider there is less risk in confining the pecuniary transactions to the two assistant deputy-surveyors. I think there can be no objection to the continuance of 12 woodmen, instead of 13 as at present, but I doubt the policy of disturbing the present arrangement under which the deputy surveyor has a few woodmen-labourers qualifying for, and looking up to, the position of woodmen.

Practically, the point at issue is whether a new system is to be introduced on the recommendation of Mr. Brown. I am myself of opinion that the main allegations made against the forest officers by Mr. Brown rest upon an incorrect statement of the age of the trees, and that such improvements as it might be desirable to introduce could be effected without displacing individuals, whose management is, to a great extent, unimpeachable, and is actually commended by Mr. Brown himself. I consider that the recommendations made by Mr. Brown would, especially as respects the sawing-mill, the destruction of the "single trees," and the sweeping away the whole of the crop on the Highmeadow Woods, be a most unjustifiable waste of public property, and I doubt if any person, practically acquainted with the management of woodland south of the Trent, would think of dealing with a private estate as proposed in his Reports.

I now proceed to report in detail—

Report, No. 1.—As regards Timber in Dean and Highmeadow Woods, as to the best mode of disposing of the Timber not suited for the Navy, and as to the application of improved sawing-power, and as to appointment of Agents, for sale of Timber.

I am decidedly of opinion that the most profitable mode of disposing of timber generally, is to sell it standing, with its lop, top, and bark; but, where it is necessary to fell for the purpose of the Navy, and the rejected timber only is to be disposed of, I do not see how any better mode can be adopted than to sell the timber in the rough. The evil, in the present system, consists in allowing the purveyor to the Navy to cut up the trees into such lengths and sizes as to render them unsaleable to private merchants, whereas the same trees, in their whole state, would probably have realized a fair price. I observed, in several instances, that the whole of a tree was rejected, after being cut into three or four parts, besides having been bored and defaced. The price paid by the Navy is not adequate compensation for the loss occasioned by such a system, and the practice would not be allowed on any private estate. The purveyor should select such trees as may be thought fit for the Navy, but should not be permitted to cut into lengths, to bore, or otherwise to deface the trees; but, if he doubts a tree, it should be left altogether. By the present system, the refuse is little better than firewood.

A considerable portion of the rejected timber, both in Dean Forest and Highmeadow Woods, has been removed. In all large falls of timber, large rejections are made by the Navy, arising from various causes, but a large proportion of such rejected timber would be purchased by, and fit for, the mercantile marine and private trade, if it were not so damaged by the purveyor. It may be necessary that the purveyor should satisfy himself that he does not accept for the Navy a foot of defective timber; but the present practice is improvident for the Crown as the vendor of the timber.

I do not consider that the rejected timber, if properly treated, would be unsuitable for any other important purposes; it would be suitable for fencing, general builders' and railway-works, and other purposes for which oak is required; and it must be borne in mind that the Navy purveyor takes no small timber, unless it is compass. In a subsequent part of Mr. Brown's Report, No. 1, he says: "When the timber was disposed of in a growing state by "public auction, and when the best was not picked out for Navy purposes, as has been done "this year, it realized nearly 3 *s.* per cubic foot." This is a strong confirmation of the loss arising from the mode in which the timber is cut about at present.

Mr. Brown afterwards says, as regards the rejected timber, "A few trees I valued at 2 *s.* "per cubic foot," the greater number at 1 *s.* 3 *d.*, "and not a small portion at as low a price "as 4 *d.*" This opinion is given to show that if farther outlet and sawing-power were provided, the timber would be of greater value.

Although, for mineral purposes, farther railway-accommodation may be required, yet Dean Forest is, upon the whole, well situated for carriage. On the north side, is the River Wye; on the south, the River Severn; and, connecting the two rivers, are two tramways. Few woodland estates are so well situated for the removal of timber and other similar produce. In being able to affix 2 *s.* per foot as the price of the whole trees, Mr. Brown negatives his own opinion of the want of increased facilities, as this is as good a price as such timber would command

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command in any situation in the southern district, and it leaves the price of 1 *s.* 3 *d.* and 4 *d.* to be accounted for by the mutilation to which the trees so valued have been subjected.

The next point for remark is the old timber in Highmeadow Woods. Mr. Brown states, "I examined the felled timber lying there, also, and find that portion of it which has been considered unfit for the purposes of the Navy, even less valuable than that of the Forest of "Dean;" and (to avoid a long quotation) he attributes it to being reared from old roots, or stubs.

The reason why a larger proportionate rejection took place in the Highmeadow Woods than in Dean Forest, is to be found in the instructions given by the late Board of Woods, and acted upon to the present period, not to cut any trees, whether large or small, that were not either defective or going back in quality, or requiring thinning. It was the intention, after having felled the old timber in Dean Forest, as a supply of naval timber, to have, in the Highmeadow Woods, a reserve available for the Navy, between the times when the old timber should be exhausted, and the time when the young plantations should be ripe to renew the supply from the forest. For this reason, there is, in Highmeadow Woods, a considerable quantity of fine old timber. The prices realized in the seasons of 1850 and 1851 for the rejected timber, are to be readily accounted for by the general depression of the trade for that class of timber.

As regards the means of transport, the Highmeadow Woods adjoin the River Wye, to which the timber can with facility be drawn. No better means of transport can here be suggested. It is not a district that would warrant any outlay for a railway.

As regards the introduction of improved sawing-power:

The present time appears to me to be particularly unsuitable for its introduction into this forest. One more fall of 4,000 loads of old timber, in addition to the present one, would almost (if not entirely) exhaust the old timber in the forest, and it will be many years before there will be any timber to succeed it. Any outlay of 1,000 *l.* for sawing-power would not be repaid by the conversion of miners' timber and charcoal wood, which will form the bulk of the produce to be disposed of for some years, and from which there is, from local circumstances, a great demand; and, if it were otherwise, I doubt if it would be expedient for the Crown to supply sawing-power.

An officer adapted for the general duties of a deputy-surveyor, who has to superintend planting, thinning, ditching, &c., cannot be expected to be well informed on the subject of conversion of oak-timber, and consequently would be unfit to superintend the conversion of navy or other oak-timber, while an officer competent to perform the latter duties, would be equally unfit to perform the general duties of deputy-surveyor.

The officer appointed to purvey the timber is a shipwright, who has all his life been used to the conversion of timber, but who has no knowledge whatever of the rearing or management of trees. The timber-merchant for the general timber-trade is what the tanner and woolstapler are in their respective trades, purchasing the raw material of the grower, and preparing it for the manufacturer. The tanner prepares the leather for the shoemaker, the woolstapler for the manufacturer, and the timber-merchant converts the timber for the shipbuilder and general consumer. The work is much more economically done by the man whose business it is, and who has a connexion and a regular demand for all classes and qualities of timber, than by the owner of the timber. No forest officer can have this connexion, even if he had the knowledge; and the division of labour is at least as beneficially applied in the timber-trade as in any other.

This brings me at once to the subject of agents dispersed in all the most important towns of the kingdom. If attempted, this would be liable to great objections and risks, would open the door to fraud, intricacy of account, and abstraction of the deputy-surveyor's attention from the true business of his office, the care and management of the forest, and the protection of the Crown's rights therein.

The timber in all woodland estates is sold to the merchant, who converts it and distributes it to the markets. The profit he gets would not, in any way, compensate for the labour and expense of conducting this business on behalf of the Crown through its officers, nor, as it appears to me, is it a duty which Parliament intended should be undertaken by the Commissioners, or their officers.

Report, No. 2.—As to the practice of stripping the young Trees in the Inclosures before felling, and also as to the mode of harvesting the Bark.

I do not think the practice of peeling the trees standing can be an economical one, nor is it adopted generally in the south of England, though it has been, and still is, practised in Lancashire and the adjacent counties. I consider that the bark would be more easily removed from the branches when the tree is on the ground, and that this would more than compensate for the loss of time in felling. The reason given for the system in this forest is, that the labour of felling the tree is more cheaply performed at a later period of the year.

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As to the system of harvesting the bark in Dean Forest, I have to remark that it is the one now generally adopted throughout the south of England. Several of the largest timber-merchants have tried the system advocated by Mr. Brown, and have gone back again to the old plan of setting it against the pole. A few days since, on visiting Wychwood, the wood-man informed me that the proposed system had been tried there, and had entirely failed. In the largest oak-growing district in the United Kingdom, the almost universal practice is to set the bark against the pole. On points of such minute detail, it would be a waste of their Lordships' time to report more fully. An efficient deputy-surveyor must be aware of the local circumstances which should guide him in the selection of the best and most economical plan for this work.

My own practice has been to fell the tree, first taking off the bottom bark, and afterwards to strip it on the ground;

Secondly, to place the bark perpendicularly against a pole, covering the top end with a strip of the best body bark.

I am not, however, wedded to the latter system, for all localities; in some situations, the other plan would be best; but, in open places, the plan stated above I believe to be the best.

Report, No. 3.—As to the Inclosures which have been thrown open to the Commoners, and the Inclosures still enclosed.

Mr. Brown has divided these into two divisions, in compliance with your instructions. I shall report upon them together, as I have only to report that, as regards those thrown open, no injury has arisen to them from their exposure to the common cattle.

Mr. Brown states that the system of allowing the trees to remain without thinning, for so long a period as eight years, is very injurious to the health and value of the crop, leading to the inference that this was the custom of thinning in the forest. He does not appear to have ascertained the facts as regards the period at which the deputy-surveyor performed the thinnings. Mr. Machen states, in reference to the thinning the plantations now in course of cutting (*see* Paper marked A.), that "they were left last year, in consequence of the large "quantity of timber felled in the forest." The deputy-surveyor, I think, was quite right in thinning the plantations at irregular intervals, as they may be found to require it. In the earlier periods of their growth, plantations require to be thinned at more frequent intervals than in the latter period of their growth; and I beg to draw your attention to this Paper marked A. for the details of thinning of every plantation in the forest. It will be seen that Buckholt, which is older than the other plantations, has been less frequently thinned. Mr. Brown says, that "the inclosures should be thinned once in five years, but "the system hitherto adopted in the forest has been from six to eight years." By referring to the Paper A., it will be seen that the plantations were, in their early stages, thinned at more frequent periods.

Mr. Brown remarks upon certain of the inclosures, viz., Stapledge, Serridge, Birchwood, &c., that they have been overthinned. This apparent overthinning is stated to have partly arisen from the circumstance that orders were some years since given to encourage the Spanish chestnut-trees, which have made much more rapid growth than the oak, and had, in many cases, much overtopped them.

Of late years, it has been found that the greater part of these chestnuts have shown symptoms of shake and unsoundness, and their removal was, therefore, three years since, decided on. The effect is, that, having overtopped the young oaks, considerable and uneven intervals are unavoidably left on their removal. Although, at first, the plantations may look overthinned, good may still result therefrom, for the following reason: the most valuable timber for shipbuilding are long curved trees; these are obtained by allowing two, three, or four trees to grow together, to form one head, and by clearing a sufficient space to allow them to curve and grow.

No security can be felt that the chestnut will remain sound, for the most flourishing of them, between the age of 30 and 40 years, frequently become unsound.

It was thought by the Duke of Portland and others that chestnut would form a very useful timber for naval purposes, and it was, upon his Grace's suggestion, allowed a place in Dean Forest; but experience has shown that it will not remain sound, either here or on the New Forest, and it should be removed, with all convenient speed, before the rapidity of its growth interferes farther with the young oak-trees.

Mr. Brown, in remarking on the thinning, says that Serridge, which has only 140 trees to the acre, is much too thinly clad; but I must be allowed to state that great difference of opinion exists as to the number of trees at the different ages; for instance, Messrs. Driver, in their Report to the Commissioners of Inquiry, in 1788, state that at 35 years of age the oaks should stand at 20 feet apart, or about 110 trees to the acre. This number of trees differs widely from Mr. Brown's opinion of what number ought to stand on an acre; the fact is, that no exact number can be given, as it must depend mainly on the rapidity of growth

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growth of the young plant; and, in so large a district as Dean Forest, and with a surface so undulating, much must be left to the discretion of the deputy-surveyor.

Nothing can, in my opinion, better show the great attention paid by Mr. Machen to the duty of thinning the plantations than a reference to the Paper A.; and, having had personally the management of some of the largest oak woodland estates in the timber-growing districts of the south of England (of which estates my family have had the care for a century), I venture to affirm that upon no estate in England can there be found better oak-plantations, or woods of better growth, than these in Dean Forest. They reflect the greatest credit upon all concerned, looking to the fact that, although the land was inclosed between the years 1810 and 1817, the first planting by contract was almost entirely a failure, and, until 1821–1822, it was not completed.

Lord Glenbervie, the Chief Commissioner of Woods, &c., in 1809, previous to commencing the operation of planting, invited the remarks of all persons supposed to understand, or be interested in, the management of plantations and woodland in the United Kingdom, as to the best mode of planting; and, upon the various answers, it was decided to plant acorns, with what success has been before stated at page 43 of this Report.

There is another point which ought to be mentioned with reference to the growth of the plantations. This forest has been very frequently subject to blight of caterpillars, by which the whole of the first shoot has been destroyed. This I have myself seen; and the forest officers state that many portions of the forest have been so seriously afflicted with this blight, as to render the recovery of some of the trees very uncertain.

I now come to a part of Mr. Brown's Report in which he recommends several portions of different inclosures to be wholly cleared and re-planted. He more particularly mentions Nag's Head, Edgehill, and Haywood. As regards the first (Nag's Head), I should not destroy the whole of the present crop. In the part referred to, the land is of so poor a quality as to render inexpedient any further considerable outlay upon it. The larch, planted some years since, have made but little progress, and, if allowed to remain (clearing away the rubbish), the vacant spaces might be filled up, where necessary, with larch and oak. This plan, I consider, would be more profitable than clearing the whole. The parts alluded to in Haywood and Edgehill are partially covered with spruce and Scotch fir, with some few oaks and larch intermixed, which appear to be doing as well as anything is likely to do upon a soil and spot so poor and elevated. I would recommend these portions to be filled up with larch for miners' timber, as it would not be worth keeping up the fences for so small a quantity of land, and for so long a period as would be required for raising oak on this land. The land would require a few deep open drains, before planting.

Several of the inclosures thrown open, also require some draining, but the deputy-surveyor has doubted whether it would be advisable to incur the expense, as the commoners' cattle would tread them in almost as fast as made. I should recommend, however, a few three-feet drains in the wettest spots. The general importance of draining, as well on cultivated land as on woodland, cannot be overstated. In cultivated land, by under-drains, and, in wood, by deep open ditches. The depth suggested by Mr. Brown, where practicable, is the least that should be adopted; but, as regards distance, I think that 40 and 45 feet for soils similar to the Forest of Dean, is much nearer than is requisite; no uniform distance can be defined as applicable to soils either on woodland or corn-land; and as in order to make woodland profitable, it is necessary to exercise the greatest economy, consistent with efficiency, no more ditching should be done than is absolutely required.

Mr. Brown remarks in several instances on the injurious effect of the underwood on the young oak-trees.

I have not found underwood injurious to oak-timber during its early growth; it rather nurses it up than otherwise; and, if not allowed, in the earlier period of the growth of the young tree, to overtop it, after the periodical cutting, it never again injures it. In Sussex, Kent, and Hampshire, the oak is all reared amongst underwood, and no oak-timber can grow better.

I am fully aware that a prejudice exists against underwood, but having seen nearly all the large woodland estates in the south of England, and having the management of very extensive woodlands, I can affirm practically that underwood, if it be cut periodically and frequently, does not retard the growth of oak. I am satisfied that the evil effects suggested are without foundation.

Where underwood interferes with a young planted oak, it would be useful to weaken the underwood, as suggested; but to do it generally and extensively would, I believe, be found far more expensive than Mr. Brown contemplates, and further that the outlay would not be repaid.

If Mr. Brown's Report is carefully looked into, it will be seen that, in detail, by far the larger portion of the plantations are spoken of as healthy and progressing, and likely to become fine timber.

And he observes, "the inference my inspection has compelled me to draw is, that the "inferiority in size of the trees in Dean Forest is entirely attributable to the defective "system of management."

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I have before shown that this inferiority of size does not arise from defective management, but from the erroneous assumption that the trees are of 40 years' growth; whereas, many of them are only 30 years, and few of them exceed 35 years' growth. As I have before observed, I do not think such plantations can be found elsewhere in England.

Report, No. 4.—Mr. Brown's Report, No. 4, treats of the Highmeadow Property.

It appears that the inclosures (1,013 acres) were planted in the years 1826 and 1827, and, with the exception of a small portion of Knockhall and Marian, have an exceedingly thriving and regular crop. Mr. Brown cannot speak more highly of these than their state warrants. They were not, however, better than many of the plantations in Dean Forest. The period of planting in Highmeadow Woods is assumed to be of much more recent date than the planting in the forest, although, in fact, many of the young trees in the latter situation are only five years older than those in the former.

I now come to the Old Wood, consisting of 2,313 acres, which Mr. Brown recommends to be swept away, and replanted. This, I consider, would be a great sacrifice. I am informed, as has been already stated, that the Highmeadow property was purchased with the view of supplying the Navy with timber during the interval between the exhaustion of the old timber in the forest and the time at which the young trees in the inclosures should be fit for navy timber. With this view, the officers of the forest have properly felled nothing but defective timber, or such as required thinning, reserving the sound for the purpose before stated.

In the Dowards Wood, consisting of 254 acres, Mr. Brown recommends 100 acres to be cleared. I entertain a very strong opinion that this would be injudicious, inasmuch as there is nearly half a crop of thriving young stores, which it would take 25 years to replace. I would here again recommend filling up with oak (with some larch as nurses) in preference to the clearing suggested. I particularly observed, in many parts of this wood, that, with very little cost, an excellent crop may be obtained from the young plants springing up spontaneously. On the east side of the wood, there is a considerable quantity of beech, which I recommend to be cleared, and that this part should be planted with larch only, on account of the abrupt and rocky nature of the land.

In your instructions to Mr. Brown, you say, " I should wish you to report your estimate " of the average acreable value at the present time of the wood now standing on the High- " meadow Woods, on the hypothesis of being cut and disposed of, say at the rate of from " 200 to 300 acres per annum."

Upon this, Mr. Brown commences by stating, " I come now to the 2,313 acres under a " crop of old coppice-timber generally matured in growth."

I beg to remark upon this portion of his Report, that the trees upon these woods are at every period of growth from 10 to 120 years. The woods are very similar to the whole of the woodlands in the southern oak-growing counties; and they are such as for good husbandry we should like to have. The underwood is cut at periods varying from 15 to 18 years, depending on the rapidity of its growth; at each falling, such oak-stores as can be found are saved, and until recently have been planted for timber; consequently, the oak-trees are of various ages, and, if judiciously managed, will supply a succession of timber fit for naval and general purposes. Many of the trees (but not all) have no doubt been saved on stools; and, although I should myself prefer a maiden-tree, I would store a tree on a low stool, as is usually done in Sussex, with a certainty of obtaining very much valuable and fine timber. I have stored thousands of them, and the best woodman would be unable to tell which was a maiden-stock, and which otherwise; and my father's observation throughout a period of 50 years, and over many thousand acres of oak woodland, confirmed this view. By your instructions, you require Mr. Brown to report on the hypothesis of 200 or 300 acres of this wood being cut annually. If this suggestion is carried out, or even that of Mr. Brown, to clear annually 100 acres, I am of opinion that very serious injury will be inflicted upon the heir to the Crown.

It is quite true that you will realize a large present income for a few years, but then all profit will end for many years. If cut at the rates indicated, the whole would be cleared at the following periods:—

As recommended by Mr. Brown - - -	100	acres	per annum,	23 years.
As proposed by Mr. Kennedy - - - -	200	„	„	11 years.
	300	„	„	7 „

The adoption of either of these suggestions would, in my judgment, be improvident. It suggests to me the idea of a tenant for life, without impeachment of waste, having no regard for the succession, denuding an estate of the whole stock of timber.

If a course of good husbandry is adopted, a safe and fair income will be obtained; and I would suggest that, upon every periodical falling of the underwood, such trees as have arrived at maturity, and such as are not growing, should be felled; and, if this be judiciously done,

done, spaces would be found on which oaks, with some larch, might be planted, leaving for an ultimate crop all the trees which are of various ages and growing to form a succeeding crop, in due course and succession. The above is the system generally adopted, with the best results; we obtain, and have obtained, large incomes from woodland estates so managed, giving to each generation its due amount of income, without trenching upon that of the successor.

I am informed by Mr. Machen that the reason why no sound old timber has been cut for some years is as follows:

It had been ascertained by the late Board of Woods, Forests, and Land Revenues, that the old oak-timber in Dean Forest would, at no distant period, come to an end; they desired, therefore, that the old timber in Highmeadow should form a reserve from which to draw a supply of navy-timber between the above period and the time when the inclosures would be in a state to continue the supply from this district. The large demand made upon Dean Forest in this and last year has greatly hastened this period; and, after one more year, if the same course is followed, the forest will be absolutely clear of old timber.

The amount of advantage of growing oak necessarily varies upon different soils, and in different situations.

The best quality of oak grows upon the weald clays of the south of England, but it is not so rapid in its growth as timber grown upon the old and new red sandstone formations, or on the better parts of the green sand. Upon these better soils, a variety of oak, different from, and inferior as timber to, that found upon clays for the most part grows; but the greater rapidity of the growth makes up for the better quality of the oak grown upon the stiff clays.

The recorded growth of trees marked and measured periodically in these woods, would show that they have grown, and still do grow.

In Mailscot Wood, a space of 90 acres has been marked, and the timber measured for the purpose of clearing, as suggested. There are (besides 684 oak-timber trees) 1,080 young oak-trees, averaging five feet of timber, and an equal number at least of saplings and young trees not measurable, all of which would be destroyed by the proposed plan of clearing. Assuming this portion of the woods to be a fair specimen of the old woods, there would be a destruction of 25 young trees and saplings per acre destroyed; *i. e.* 2,313 acres, at 25 trees per acre, 57,825 trees destroyed prematurely. But this 90 acres does not contain an average crop of oak; about 40 of it is steep cliff and barren land; about 50 acres would give an average crop; consequently, 40 young trees per acre will be destroyed, or 92,520, which, if left, will arrive at maturity at various periods within the next century.

Mr. Brown, in reference to the young plantations, says very shortly, as regards the extent stated, 811 acres, that it is "in a very flourishing state indeed."

Mr. Brown also says, that the average diameter is 5 ½ inches at 6 feet from the ground, a diameter seldom found in trees of 27 years of age. When it is shown that the young trees in Dean Forest are few of them more than 35 years' growth, and many of them only 30 years, it will necessarily follow that their diameter of 8 inches must be considered as a great growth. And Mr. Brown afterwards says that these 811 acres "are in a highly "satisfactory condition."

It must be borne in mind that the plantations, so much praised by Mr. Brown, have been reared and managed by the officers who now have charge of Dean Forest, and that the supposed superiority of the Highmeadow Plantations, as compared with those of the forest, is, as I believe, wholly based upon erroneous assumption that the trees in the latter are of 40 years' growth.

At the period when these plantations were made, the system of planting in Dean Forest, directed by Lord Glenbervie, had been fully tested, and found defective, and the improved system, found by experience to be good, had been adopted.

As regards the 203 acres described as of an extremely inferior character, I have to observe that this portion of the plantation is extremely poor land; and, although for the most part planted in all respects similarly to the other portions, it is clear that the soil will never produce a crop of timber; and I am of opinion the less that is expended upon it the better. I was informed by the officers in the forest that the larch planted some years since were found, upon being cut, to be unsound and hollow at the butt. There is upon the ground a partial crop of oak; and, within a few years, larch-plants have been again in places planted, but they make little progress; and the most prudent plan, in my judgment, is from time to time to plant such portions of the land as may become bare, but to leave the present crop to make such progress as the nature and quality of the land will admit.

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Report, No. 5.—As to the state of the single Trees planted in the open Forest, the Removal of old Trees from the Inclosures, and suggesting the necessity for Drainage-Works, &c. (7 January, 1853.)

I will now proceed to report on this portion of the forest. It appears that after the whole of the inclosures, which the Commissioners of Woods, &c. were empowered by the Act of Parliament to make, were completed, it suggested itself to the deputy-surveyor to plant portions of the uninclosed waste with single trees. He has, accordingly, covered a considerable part of the open forest, which otherwise would have been totally unprofitable to the Crown, with single trees. It appears that the first attempt was made around the Speech-house nearly 50 years ago, and with what success may be judged of from the fact of their being so much larger and more likely to make fine timber than those left in the inclosure (Acorn Patch) from which they were taken. Many of these trees have 20 feet and more of timber at this time (which is an extraordinary growth), whereas, in the plantation from which they were taken, the trees are not of equal size. From 1831 to 1835, 175,000 young oak-trees were planted in a similar manner on the open waste, a large proportion of which are in a highly flourishing state, and, having been planted at 12 feet apart, have stood up to this time without any cost to the Crown. The quantity thus planted would give an area of 600 acres; but, in addition to this, a considerable number were planted by the woodmen of the several inclosures by day-work, of which no record has been kept. Of this 600 acres, the portion of the young trees planted on the more exposed situations have not made progress, but by far the larger part of these young trees are as flourishing, and will make as fine timber, as any in the forest. This is placed beyond doubt by the single trees now standing near the Speech-house. In your instructions, you particularly draw Mr. Brown's attention to the single trees on Moseley Green. This portion of the forest is elevated poor land, and much exposed, and the trees have made little progress.

Mr. Brown further says: "These single trees, although they have been planted in the "better portions of the open forest-land, having failed to succeed healthily, because no nurses "have been planted among them, and because they have been exposed to injuries from "cattle, while but of a small size." It did not apparently occur to Mr. Brown that these young trees could not have been planted with nurses, as the Commissioners of Woods had no power to inclose the land on which they were grown. Mr. Brown further reports: "They appear to be of different ages, between 25 and 30 years;" but this is scarcely accurate, for the planting took place between 1831 and 1835, when 175,000 were planted on 600 acres, being from 18 to 22 years only, except a few which were planted between 1827 and 1831. I think Mr. Brown cannot have seen many of these young trees, or he would not have recommended that they should be "cleared away, in order to give place to a crop "of young and promising trees." I am of opinion that vast numbers of these trees cannot be surpassed in excellence, and it would be madness to destroy them all indiscriminately; they are in a state to make timber with rapidity. If, upon making further inclosures, any young trees should be found which do not grow, it would be expedient, no doubt, to remove some of them, and replace them by oaks and larch nurses; but if any grow well, I see not only no benefit to be derived by destroying a growth of 20 years, but a positive and wanton loss. Mr. Machen has wisely, I think, on the 2,000 acres of plantation made since 1842, wherever any single oak-trees were found thriving and growing, left them; and, with the protection afforded by the larch, they will make fine timber, and a saving of 20 years will be caused thereby. Even if these single trees had not grown, it was a laudable attempt to acquire a valuable property for the Crown; but, as I stated before, the attempt has been successful, and, to a large extent, they do grow very rapidly.

In this Report, it is recommended to plant a narrow strip of land on the line of the Severn and Wye Tramway. This plot being by the side of one of the arteries of traffic in the forest, the fencing would be expensive to make, and very expensive to maintain; the difference between this and a private estate is, that here the fences require to be made, and kept against ill-fed and wild common cattle; whereas, in the latter case, the fences are most frequently against corn and grass-fields. As a general rule, however, I should advise that all land which is not immediately bordering upon the great mineral or manufacturing works, and which is of sufficient area to be profitably planted, should be inclosed and planted, accordingly; but, if sufficient spaces are not left for the general and increasing requirements of the forest, the young trees will be injured and destroyed. Very many of the old inclosures may be thrown out; the expenses will be reduced considerably, by getting rid of the repair of fences and roads, and the cattle, and keep down the brambles and bushes which require to be cleared away, to enable the labourers to fell the trees for thinning.

As regards the newest inclosures, I have before reported upon some of the single trees which have been left in these inclosures. I believe the forest officers have exercised a wide discretion in leaving them, as they have attained a growth of 20 years, and, with the increased warmth afforded them, will make timber much more rapidly than another young plant now put in to replace it. As regards the old thorn, holly and yew-trees, they were retained principally for ornament and shelter; and as, regards the two former, where they are near the turnpike-roads, and frequented spots, I should leave the most ornamental; the space which individual specimens occupy is quite inconsiderable, and, as the young trees progress, they will

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will overpower them, and little or no injury will arise to the ultimate crop. In the centre of the inclosures, I see no object in retaining them. I never, however, saw a holly interfere, in any way, with a forest-tree. Oaks will grow through the middle of a holly-bush.

I will not further lengthen my Report on this point, as I think it a matter of little moment.

As regards the 1,200 acres mentioned as being damp, I examined these young plantations, and found them well ditched; the ditches are deep and well made, and are, for the most part, quite sufficient. I do not agree that it is necessary on a soil similar to the Forest of Dean to make ditches at 45 feet; I believe it to be a waste of money. Again, the question arises, have the plantations generally, which have been inclosed and managed by the forest officers, made progress? If the state of the crop is a criterion, I say that the past system has been good, and the young plantations are made precisely as those in the Highmeadow estate were made, of which Mr. Brown states that nothing can be better.

As regards the mode of thinning the young trees by each woodman alone, as suggested by Mr. Brown, I think it should be adopted, with some modification. I have before stated that, for the purpose of growing well-shaped and valuable compass timber, oak-trees should be left in clumps, and, in my opinion, the forest officers would do well to bear this in mind.

Report, No. 6.—As to the Establishment of Woodmen, and Estimate of Receipt and Expenditure for 10 years, 1853 to 1862 (January 13th, 1853).

As regards the divisions of the forest into even districts, so far as it can be done advantageously, it should be done; but, in Dean Forest, the population and the chance of injury must be guarded against.

It is recorded in the Fifth Report of the Commissioners of Inquiry, in 1788, that the property of the Crown in this forest was greatly injured, and almost destroyed. And, in the neighbourhood of the works and the tramways, and the masses of population, the same thing will again arise, unless there be sufficient woodmen to watch the plantations carefully. The reason why so many as 23 woodmen were originally appointed, was probably that the commoners were jealous of the large inclosure of land made against their cattle, and great difficulty was experienced in preventing the destruction of the fences. In fact, so lately as in 1831, the commoners destroyed several miles of fences, which cost to repair 1,500*l.*; but, as the plantations are now in part thrown out, and more can at any time be thrown open to the commoners, and, as the older woodmen die off, their plantations should be given to the woodmen, labourers, and other men. Mr. Brown does not appear to be aware that there are, at this time, only 13 regular woodmen and 10 woodmen-labourers, although you require him to report on the whole establishment, as it at present exists. The woodmen receive 15*s.* per week, and the woodmen-labourers 12*s.* per week, the ordinary pay of a labourer. The latter are not regularly employed by the day; but, for bark-peeling and other work, they are employed by the piece; they have been selected from the better labourers to succeed to the woodmen's places, as occasion arises. This system would appear to me to be just to the men, and likely to excite emulation amongst the labourers, and a proper incentive to exertion. I am informed that four fresh woodmen have already been brought from Scotland (three since the date of Mr. Brown's Report) to fill the places of some of the old men, or those who have died; consequently, the number as suggested by Mr. Brown to be reduced, must be effected by the discharge of 15 of the old woodmen or woodmen-labourers who for years have carefully watched and guarded the property of the Crown. It would, perhaps, here be right to explain what have been the duties of the woodmen. Upon the first inclosures being made, Lord Glenbervie caused to be erected a lodge in each inclosure, and the duties of the woodmen appointed to live in the lodges were to repair fences and roads, and see to the delivery of produce, and the thinning of young trees. It has never been hinted, I believe, that they have not performed their duties honestly and well; and, although Mr. Brown assumes that there are 23 woodmen, and implies that they receive 15*s.* each, I have shown that such is not the fact. The men called woodmen-labourers, although only doing the work of common labourers, have an inducement held out to them, by the use of a cottage and permanent employment, to protect the property of the Crown, with the prospect of advancement. If this is abruptly withdrawn, and these men are displaced by the introduction of Scotch woodmen, I cannot but fear that the service may suffer. This is independent of the injustice which, it strikes me, would be inflicted on a very deserving class of men, who have, I believe, unquestionably performed their duties with judgment and ability.

As regards Mr. Brown's estimate of the probable average yearly income in Dean Forest, exclusive of old timber, I have only to remark that the thinnings should and will, I have no doubt, produce the sum mentioned.

As regards Highmeadow Woods, Mr. Brown recommends the reduction of woodmen from five to four. John Jones, who has the care of Doward (254 acres), apparently has a small district; but the Doward Wood is on the opposite side of the River Wye to the remainder of

Dean Forest.
——
Mr. Brown's and Mr. Clutton's Reports.

the Highmeadow Woods, and is unprotected on the north side, adjoining to a common; but he has (as all the other woodmen have) been in the practice of aiding in the general work of the estate.

As regards the estimated average annual income, I have no doubt, by judicious management, and by the cutting of ripe old timber, as suggested in a former part of this Report, the income may be exceeded, as the large expenditure in replanting will be saved.

In conclusion, I beg to draw your attention to the fact that Mr. Brown, throughout his Report, confirms my opinion that the Crown plantations will ultimately attain a large size, and become valuable timber, and repay their cost with interest.

The main difference being, that Mr. Brown, from inaccurate data, speaks slightingly of their growth up to this time; whereas, I have shown, I hope satisfactorily, that being younger than Mr. Brown has assumed them to be, they are of a large and very satisfactory growth, taking Mr. Brown's own dimensions in proof of it.

I have to express my regret that this Report has been delayed; but it was necessary to make an investigation upon the ground, to revive my recollection of the state of the Forest and Highmeadow estate; and, as I found myself obliged to differ in some important points from the conclusions at which others had arrived, I have been desirous of performing a duty in itself by no means agreeable, only after full deliberation.

In many respects, Mr. Brown's views coincide with my own, as stated both in my examination before the House of Commons and in my Report to the late Commissioners of Woods and Forests, the most important being that this forest is likely to produce a very valuable and paying crop of oak-timber; but I must again repeat that, if the woodmen are permitted to trim the young oaks, as Gorrie, the woodman, is now doing, without reference to the deputy-surveyor, the same loss by rejected timber, owing to defective knots, will again arise. The destroyer of the timber will have passed away, but the mischief will remain, and increase as long as the timber stands, although to appearance the sore will have healed.

I have, &c.

(signed) *John Clutton.*

The Right Honourable T. F. Kennedy.

(A.)—DEAN FOREST.

ACRES.	NAMES OF INCLOSURES.	FIRST INCLOSED.	PLANTED.	PERIODS OF THINNING.										
258	Bromley	1812	The whole of these Inclosures were planted soon after they were inclosed, but with acorns, and mice and other vermin destroyed the crop; they were mended over at various times, but no exact record kept. I see, however, that in 1821–22, 2,000,000 oaks were planted; and I think 30 years would be a fair average of the ages of the trees in all the inclosures.	1835	1844	1850	- -	- -	- -	- -	- -	- -	- -	-
158	Shutcastle	1812		1831	1838	1845	- -	- -	- -	- -	- -	- -	- -	-
372	Crabtree Hill	1811		1837	1844	1851	- -	- -	- -	- -	- -	- -	- -	-
Part	Stapledge	1814		1834 *a*	1835 *b*	1837 *c*	1840 *a*	1841 *b*	1844 *c*	1845 *a*	1847 *b*	1848 *c*	1850	These inclosures are now thrown open, and the trees in them do not appear at all the worse.
816	Blakeney Hill, North and South.	1813		1829 *a*	1831 *b*	1835 *a*	1837 *b*	1842 *a*	1843 *b*	1848 *a*	1849 *b*	- -	-	
308	Beechenhurst	1810		1834	1841	1848	- -	- -	- -	- -	- -	- -	-	
135	Birchwood	Old		1828	1840	1848	- -	- -	- -	- -	- -	- -	-	
41	Holly Hill	1810		1836	1844	1850	- -	- -	- -	- -	- -	- -	-	
92	Lea Bailey Copse, South	1811		1836	1839	1845	- -	- -	- -	- -	- -	- -	-	
494	Edgehills	1815		1828	1829	1833 *b*	1838 *a*	1840 *b*	1845 *a*	- -	- -	- -	-	Where the thinnings are so frequent, parts only of the inclosure (marked *a*, *b*, and *c*) were taken. Edgehills, Yew Tree Brake, Park Hill, and Shutcastle, are stored for thinning in the present year; they were left last year, in consequence of the large quantity of timber felled in the forest.
407	Haywood	1810		1829	1836	1842	1850	- -	- -	- -	- -	- -	-	
313	Ruerdean Hill	1812		1828	1834	1839	1845	1851	- -	- -	- -	- -	-	
475	Aston Bridge	1816		1836	1839	1845	1851	- -	- -	- -	- -	- -	-	
387	Serridge	1810		1829	1832	1843	1850	- -	- -	- -	- -	- -	-	
397	Sally Vallets	1812		1832	1839	1842	1846	1852	- -	- -	- -	- -	-	
352	Buckholt	Old		1829	1835	1844	1851	- -	- -	- -	- -	- -	-	
386	The Perch	1816		1829	1833	1840	1847	- -	- -	- -	- -	- -	-	
353	Barn Hill	1810		1830	1833	1842	1847	- -	- -	- -	- -	- -	-	
809	Nag's Head Hill	1814		1830	1833	1836 *a*	1837 *b*	1843 *a*	1845 *b*	1849 *a*	1850 *b*	-	-	
391	Park Hill and Whitemead	1809–13		1829	1831	1833	1840	1846	- -	- -	- -	-	-	
477	Oaken Hill	1813		1830	1834	1841	1847	- -	- -	- -	- -	-	-	
598	Cockshoot	1815		1831	1833 *a*	1837 *b*	1839 *a*	1841 *c*	1842 *b*	1846 *c*	- -	-	-	
183	Yew Tree Brake	1815		1828	1832	1837	1844	- -	- -	- -	- -	-	-	
943	Stapledge	1814		1834	1837	1840	1844	1847	1850	- -	- -	-	-	
990	Russells	1815		1830	1836 *a*	1837 *b*	1839 *a*	1840 *b*	1842 *a*	1845 *b*	1849 *a*	-	-	
163	Chestnuts	1812		1835	1842	1848	- -	- -	- -	- -	- -	-	-	
66	Leonard's Hill	1815		1836	1844	1850	- -	- -	- -	- -	- -	-	-	
86	Lea Bailey Copse, North	Natural		1831	1839 *a*	1842 *b*	1843 *a*	1847 *b*	- -	- -	- -	-	-	
168	Lower Lea Bailey	Ditto, partly		1832	1837	1848	- -	- -	- -	- -	- -	-	-	
92	Ellwood	1818		1830	1833	1838	1844	1848	- -	- -	- -	-	-	
356	Kensley Ridge	1816		1829	1830	1834	1838	1845	- -	- -	- -	-	-	

Whitemead Park, 20 May 1853.

(signed) *Edward Machen.*

TABULAR STATEMENT of the CONDITION of the INCLOSURE in DEAN FOREST, as taken from MR. BROWN'S REPORT.

INCLOSURE THROWN OPEN.	No. of Acres		Date of Inclosure.	Number of Trees to the Acre.	Size.	State of Health.	REMARKS.
	Well Spoken of.	Condemned.					
					Inches.		
Bromley - -	258	–	1812	190	7 ½ diameter.	- - In fair state of health, crop full and regular.	- - Ought to have been 11 inches, if well managed.
Shutcastle - -	158	–	1812	290	6	- - Healthy and growing, but overcrowded.	- - Naturally fair and dry soil; greatly in want of thinning.
Crabtree Hill -	372	–	1811	220	7 ¼	Fair, healthy state	- - Parts very wet; want draining, 45 feet apart, 2 ½ feet deep; trees looking unhealthy, in consequence.
Part of Stapledge -	–	258	1814	150	7 ½	Unhealthy - -	- - Overthinned; ought to be 200 trees to the acre. Very wet; recommends draining.
Blakeney Hill (South).	316	–	1813	200	9	- - Healthy, and promising state to become first-rate timber.	- - Comparatively well managed. Great damage has been, and now is being done, by the commoners opening stone-quarries.
Blakeney Hill (North).	500	–	1813	–	- -	- - - -	- - In every respect, the same as Blakeney Hill (South), except as to damage, there being none here.
	1,604	258					
Beechenhurst -	308	–	1810	200	7 ½	- - Fair state, as regards 250 acres.	- - There are 58 acres very wet. Crop very unhealthy, with 260 trees to the acre, averaging only 5 in. in diameter.
Birchwood - -	–	137	Old	130	8	- - - -	- - Greatly overthinned, trees in consequence forming branchy heads; 70 trees to the acre, too few. Three acres injured by cattle.
Holly Hill - -	–	41	1810	–	- -	- - - -	- - In every respect, the same as Birchwood. Two or three acres injured by cattle.
Lea Bailey Copse (South).	92	–	1811	No particulars		Healthy - -	- - Overthinned, in some parts, and not thinned enough, in others.
	400	178					
INCLOSURE NOT THROWN OPEN:							
Edge Hill - -	–	480	1812	300	6	- - Close and drawn up; overcrowded with underwood.	- - Eighty acres, east of road, should be cleared, and replanted with larch, the soil being poor and elevated. Fifty acres, on west of road, planted with oak, six feet apart, with Scotch and larch as nurses, eight years' growth.
Haywood - -	407	–	1812	170	- -	Fair state - -	- - Injudiciously thinned; left too much exposed, 40 acres, on south-east side of the inclosure, dying from dampness. Recommends clearing, and replanting with larch.

JOHN CLUTTON'S REMARKS.

——	When last Thinned.	State of Health.	REMARKS.
- - - - - -	1850	Very good -	- - There is a very regular and excellent crop, well managed, and very thriving.
- - - - - -	1845	Very good -	- - Now in course of thinning; very regular and full crop, and very thriving. This plantation would have been thinned last year, but the large fall of timber prevented it.
- - - - - -	1851	Fair - -	- - Never well filled up, after first planting; a few wet spots, on which the plants are short, but elsewhere very good.
- - - - - -	1851	Fair - -	- - A small portion of it wet, which has been drained this year; the crop on the wet part is not quite so healthy, but elsewhere very healthy, and of larger diameter than some of the other inclosures.
- - - - - -	1849	Good - -	- - Exceedingly regular and full crop, and very thriving. The commoners claim to have a right to open stone-quarries; the quantity of land now in quarry is, however, of limited extent.
- - *See* Paper (A.), Observations by Deputy-Surveyor. The whole of these inclosures were planted soon after they were inclosed, but with acorns, and mice and other vermin destroyed the crop. They were mended over at various times, but no exact record kept. I see, however, that in 1821–22, 2,000,000 oaks were planted, and I think 30 years would be a fair average of the ages of the trees in all the inclosures.	1849	Good - -	- - In nearly every respect the same; but, if any difference, not quite so good, there being more poor land.
	1848	Good - -	- - The trees are rather short in character, owing to inferior soil, but thriving fairly, except on a few wet parts, which require draining.
	1848	Fair - -	- - Trees are in good state to make progress, and, though short, are likely to make good navy-timber. The crop is very regular.
	1850	Fair - -	- - Trees are very similar in character to the last, but not quite so large in the bole.
- - - - - -	1845	- - -	- - This inclosure varies much, in consequence of the old timber having been cut away, and filled up from time to time; but the greater part has a full crop, and is very thriving. There are spots that require filling up. There is still a quantity of old timber that may be profitably cut away and filled up with young oaks, and larch for nurses.
- - - - - -	1845	- - Very good in slopes and lower part.	- - The slopes and lower part are exceedingly good, and likely to make as fine timber as any in the Forest; it is now in course of thinning. A small portion on the hill is poor land. The crop requires filling up, as recommended in page 47 of Report.
- - - - - -	1850	Good - -	- - West side in a very good state; top of the hill and side not so growing. On the south-west side, a portion of the land is very poor; we have recommended the manner in which it should be dealt with in page 47 of Report.

(*continued*)

TABULAR STATEMENT, taken from MR. BROWN'S REPORT—*continued.*

INCLOSURE NOT THROWN OPEN.	No. of Acres		Date of Inclosure.	Number of Trees to the Acre.	Size.	State of Health.	REMARKS.
	Well Spoken of.	Condemned.					
					Inches.		
Ruerdean Hill -	313	–	1812	160	7 ½	- - Healthy, and promises to become large timber.	- - Too thin. Land well adapted to the rearing of oak-timber.
Aston-bridge Hill -	475	–	1816	–	- -	- - Good state, and promises to become timber of large diameter.	- - Some parts overcrowded, and where no underwood, overthinned.
Kensley Ridge -	356	–	1816	250	6	- - Overcrowded with underwood and drawn up, but generally healthy.	- Underwood should be cleared, and the trees thinned to 200 to the acre. On 40 acres of detached parts of this inclosure the trees are sickly, and many dying, in consequence of extreme dampness.
	1,551	480					
Serridge - -	378	–	1810	140	8	- - Healthy and progressing, but branchy-topped.	Overthinned - - - -
Sally Valletts -	–	482	1812	300	6	- - Injured by overcrowding.	- - Condemns the practice of stripping, before felling. Soil excellent dry character, well adapted for rearing oak.
Buckholt - -	367	–	Varying from 1812 to 1842.	–	- -	- - Varies so much, according to soil and overcrowding, and also injured by old beech-trees.	- - Recommends clearing the old beech-trees, and replanting with oak, 12 feet apart, and larch 4 feet. The greater part of this inclosure has suffered from overcrowding; but, by future good management, may become first-rate timber.
The Perch - -	386	–	1816	196	10	- - Good healthy condition.	- - "Generally speaking," the better-managed than any other in the forest. Overthinned on the higher portions.
Bain Hill - -	353	–	1810	–	- -	- - - -	- - In every respect, much like the last. Some trees in this inclosure measured 14 inches in diameter.
Nag's Head - -	–	809	1812	170	8	- - - -	- - In some places, weakly and unhealthy, from injudicious thinning. Two hundred acres on the hill should be cleared off, and replanted with larch, which would yield three times the value of the oak.
	1,484	1,291					
Park Hill & Whitemead.	382	–	1809 to 1813	–	- -	- - Healthy condition, but much retarded in their growth by the great quantity of underwood.	- - The crop in a close state, and wants thinning; damp, and requires draining on the east side.
Oaken Hill - -	477	–	1813	–	- -	- - Healthy, but overcrowded with underwood.	- - On the higher ground, where there have been coal-workings, recommends clearing off, and replanting with larch. A few acres very damp. Old drains useless, for want of clearing.

JOHN CLUTTON'S REMARKS—*continued.*

——	When last Thinned.	State of Health.	REMARKS.
- - - - - -	1851	Good - -	- - Crop very healthy and thriving; many chestnuts recently cut out.
- - - - - -	1850	Very good -	- - Crop as full and regular as the nature of the land will admit; being very hilly, exceedingly thriving, particularly on the slopes and lower part.
- - - - - -	1845	Fair - -	- - Fair average crop, and well thinned. The first crop failed in the first place, and was replanted.
- - - - - -	1850	Good - -	- - Very good and thriving crop; there is an apparent over-thinning in a few places, which arises from a few large chest-nuts being removed.
- - - - - -	1852	Very good -	Exceedingly good and thriving.
- - *See* Paper (A.), Observations by Deputy-Surveyor. The whole of these inclosures were planted soon after they were inclosed, but with acorns, and mice and other vermin destroyed the crop. They were mended over at various times, but no exact record kept. I see, however, that in 1821–22, 2,000,000 oaks were planted, and I think 30 years would be a fair average of the ages of the trees in all the inclosures.	1851	- - Some very good, and some indifferent.	- - Varies very much in size, in consequence of the old timber having been cut away, from time to time, and filled up. Some large beech-trees should be removed, and filled up with larch and oak.
	1847	- Exceedingly good.	Nothing can be finer than this inclosure.
	1847	Very good -	- - Exceedingly good, thriving, and regular crop; the chest-nut are overtopping the beech, and should recommend their removal with all convenient speed.
- - - - - -	1850	- - Very good in the slopes and lower ground.	- - There is a portion on the hill which requires filling up (*see* page 47 of Report); the remainder is a very good, regular, and thriving crop.
- - - - - -	1846	Very good -	- - Very good, full, and regular crop, and very thriving; now in course of thinning. My opinion of the underwood, generally, is given at page 47 of my Report.
- - - - - -	1847	Fair - -	- - Not so good on the hill, over old coal-workings, but remainder very good. The underwood requires clearing, and filling up where necessary; but I would not clear any part of it.

(*continued*)

TABULAR STATEMENT, taken from MR. BROWN'S REPORT—*continued.*

INCLOSURE NOT THROWN OPEN.	No. of Acres		Date of Inclosure.	Number of Trees to the Acre.	Size.	State of Health.	REMARKS.
	Well Spoken of.	Condemned.					
					Inches.		
Cockshot - -	628	–	1815	140	8	- - Healthy and progressing.	- - Overthinned, and, in consequence, branchy-topped.
Yew Tree Brake -	183	–	1814	280	7	- - Very close state, but have not yet suffered.	Recommends thinning, in 1853.
Stapledge (in part)	842	–	1814	140	8	- - Healthy and progressing.	- - Overthinned, and, in consequence, branchy-topped.
Russell's - -	–	990	1812	240	7	- - Fair state of health, but overcrowded.	- - Not so large as they ought to be, on such good land; 40 too many on the acre.
			From 1812 to 1832.	Only 4 feet apart.	- -	- - Unhealthy, from overcrowding, and also underwood.	- - Recommends a judicious thinning and clearing of underwood, to fill up with oak and larch, where old timber has been felled; land to be drained, and suffered to remain one year before planting.
	2,512	990					

No. 3.

My Lords, Office of Woods, &c., 30 May, 1853.

I HASTEN to transmit to your Lordships the accompanying Report, which I have this day received from Mr. Clutton, on the subject of Mr. Brown's Reports relating to the Forest of Dean and Highmeadow Woods, dated 28th May, in obedience to the commands of your Lordships, conveyed to me by Mr. Wilson's letter of the 29th of March, on which I issued the necessary instructions to Mr. Clutton, on the 31st of March.

I also return inclosed the official papers which were, by your Lordships' permission, transmitted to Mr. Clutton.

I have, &c.,

The Right Honourable the Lords Commissioners of Her Majesty's Treasury. (signed) *T. F. Kennedy.*

No. 4.

(458.)

Sir, Office of Woods, &c., 31 May, 1853.

I HAVE to acknowledge the receipt of your Report, dated the 28th instant, on the subject of Mr. Brown's Reports on Dean Forest and Highmeadow Woods, made in pursuance of my letter addressed to you on the 31st March; and I have to request that you will inform me whether you showed or made known to any person the whole, or any part, of the contents of that Report, previously to its being submitted to me, by whose instructions it was prepared; in other words, whether I am the first person who has been apprized of its contents.

I am, &c.

John Clutton, Esq. (signed) *T. F. Kennedy.*

No. 5.

Sir, 8, Whitehall-place, 31 May, 1853.

I HAVE the honour to acknowledge the receipt of your letter of this day, and, although I do not consider that you have any right to require from me an answer to the inquiry which it contains, yet, out of respect to your position, I have no hesitation in returning you an answer. I beg, therefore, to say that, as the subject was one of importance, I showed portions of the Report confidentially, and with reference to its form only, to two or three of my friends, on whose judgment I had reliance. The whole of it has not been shown to any one.

I have, &c.

To the Right Honourable T. F. Kennedy. (signed) *John Clutton.*

JOHN CLUTTON'S REMARKS—*continued.*

——	When last Thinned.	State of Health.	REMARKS.
- - - - - -	1846	Very good -	- - Exceedingly good and regular crop, very thriving; longer and better than Serridge, to which Mr. Brown compares it.
- - *See* Paper (A.), Observations by Deputy-Surveyor. The whole of these inclosures were planted, soon after they were inclosed, with acorns, and mice and other vermin destroyed the crop. They were mended over at various times, but no exact record kept. I see, however, that in 1821–22, 2,000,000 oaks were planted, and I think 30 years would be a fair average of the ages of the trees in all the inclosures.	1849	Good - -	- - Very regular crop, and very thriving; now in course of thinning.
	1851	Good - -	- - Very regular and good crop, particularly on the east side; no appearance of being overthinned for navy-timber.
	1849	Fair - -	- - Varies very much, in consequence of old timber having been cut away from time to time, and filled up. A large quantity of timber cut last year, which has not yet been replanted. Some of the portions, planted last, require thinning. Very little draining required.

No. 6.

(Immediate.)

Sir, Treasury Chambers, 7 June, 1853.

I AM directed by the Lords Commissioners of Her Majesty's Treasury to return herewith Mr. Clutton's Report, with the schedules therein referred to, on the subject of Mr. Brown's Reports relating to the Forest of Dean and Highmeadow Woods; and I am to request that Mr. Clutton's remarks may be submitted to Mr. Brown for any reply that he may wish to make thereto, and that he may be desired to do so with all possible speed.

I am also to request that you will urge the earliest possible report from Mr. Clutton upon Mr. Brown's Reports on the New Forest.

I am, &c.,

The Right Honourable T. F. Kennedy. (signed) *James Wilson.*

No. 7.

Sir, Office of Woods, &c., 8 June, 1853.

I HAVE to transmit to you a copy of a letter, dated the 7th June, addressed to me by command of the Lords Commissioners of Her Majesty's Treasury, returning to me a Report by Mr. Clutton, in reference to your several Reports on the Forest of Dean and Highmeadow Woods, directing that it may be transmitted to you for any reply you may wish to make thereto, and desiring that this may be done with all possible speed.

I have to state that a copy of Mr. Clutton's Report will be made with all despatch, and that it will be transmitted to you by the post of to-morrow, and I have to express my hope that you will make your arrangements, so as to enable you to give to it your immediate, and as much as possible your undivided, attention.

I am, &c.

Mr. J. Brown. (signed) *T. F. Kennedy.*

No. 8.

Sir, Office of Woods, &c., 9 June, 1853.

IN accordance with my letter addressed to you on the 7th of June, I now transmit to you a copy of a Report addressed to me by Mr. Clutton, dated the 28th of May, made in pursuance of the instructions issued by the Lords Commissioners of Her Majesty's Treasury, together with accompanying papers, as per schedule annexed, and have to request that you will report to me fully on the same, with all the despatch which is consistent with full attention to all the particulars to which Mr. Clutton's Report relates.

It appears that there are some imperfections and inaccuracies, probably clerical, in Mr. Clutton's original Report; but, as it is impossible to make any alteration upon an original

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document, it has been copied with all care, and I hope that any such imperfections will not prevent you from sufficiently discussing the substance of the Report.

I am, &c.

Mr. James Brown. (signed) *T. F. Kennedy.*

No. 9.

Sir, Treasury Chambers, 10 June, 1853.

With reference to the Report of Mr. Clutton on Dean Forest, which was referred back to you by the letter from this Board of the 7th instant, I am commanded by the Lords Commissioners of Her Majesty's Treasury to acquaint you, that the attention of my Lords has been drawn to a statement contained in it, that one of the three Scotch woodmen, who it appears have been recently appointed to the forest, was engaged in the destructive operation of sawing off branches of young oak-trees, and refused to attend to the deputy-surveyor on the subject, alleging that he had received instructions to undertake the independent management of the part of the forests committed to his charge.

My Lords can have no doubt that the man has acted under a misconception of his orders, and they trust that you will have already taken steps to put an effectual stop to a course of proceeding which would be subversive of all discipline, and may be attended with serious consequences to the Crown property.

My Lords, however, think it right to bring the subject under your notice, and to urge the importance of your taking immediate measures (if you have not already done so) for making these woodmen understand that, in carrying on their duties, they are to yield implicit obedience to the orders of the deputy-surveyor of the forest, who is responsible for the charge under the control of the Commissioner.

Their Lordships also desire that Mr. Machen may be apprized that he is to enforce the same control over these men as he has heretofore exercised over other subordinate officers of the forest; and that, in case they should fail to attend to his instructions, he is at liberty to suspend them from their employment.

My Lords postpone any observation on the subject of the appointment of these persons, until they shall have the whole question of the management of the forests under their review.

I remain, &c.

The Right Honourable T. F. Kennedy. (signed) *James Wilson.*

No. 10.

Sir, Office of Woods, &c., 13 June, 1853.

In a Report recently presented to me by Mr. Clutton, on a reference to him of the Reports of Mr. Brown on the affairs of Dean Forest, the following passage occurs:

"I found, on my recent inspection of the forest, that James Gorrie, one of the four "woodmen brought from Scotland (three of them since the date of Mr. Brown's Report), "had been appointed to the plantations called Sallow Vallets, Buckholt, &c., and had com- "menced operations, by cutting off boughs of oak of four or five inches diameter. Upon "expressing my surprise to the deputy-surveyor, he stated that the man acted in defiance "of his authority, stating that his instructions are to do what he thinks proper in the plan- "tation under his care. I therefore think it necessary to report the fact, in order that "proceedings so entirely at variance with authority and good management may be at once "checked."

I have to request that you will be so good as to state, with precision, whether or not Mr. Clutton's statement is borne out by any statement of facts which you made to him; and, if so, that you will state with accuracy what your statement was; and if not, that you will equally state with precision what your statement was respecting the woodman Gorrie, it being necessary to ascertain the facts in this case beyond question.

Be the facts what they may, you are aware that you never reported them to me; and it is somewhat extraordinary that an occurrence of the kind should be left to be reported on by Mr. Clutton, instead of by the deputy-surveyor. If the facts be correctly stated by Mr. Clutton, there can be no question that it was your first duty to report them to me at the earliest period; and, if they were of a more trivial character, it was still proper that I should have had the earliest intimation of anything even approaching to insubordination and disobedience.

I inclose a letter addressed to James Gorrie on this subject, which I request that you will cause to be delivered to him immediately, as it is fair that every man, when accused of an improper proceeding, should have an opportunity of giving his own explanation. I shall desire him to give me an answer in writing, and, if he should be unable to do so distinctly, I shall, after receiving his written explanation, direct him to come to London.

I am, &c.

E. Machen, Esq. (signed) *T. F. Kennedy.*

No. 11.

James Gorrie, Office of Woods, &c., 13 June, 1853.

In a Report recently presented to me by Mr. Clutton, on a reference to him of the Reports of Mr. Brown on Dean Forest, the following passage occurs:

"I found, on my recent inspection of the forest, that James Gorrie, one of the four "woodmen brought from Scotland (three of them since the date of Mr. Brown's report), "had been appointed to the plantations called Salley Vallets, Buckholt, &c., and had com- "menced operations by cutting off boughs of oak of four or five inches diameter. Upon "expressing my surprise to the deputy-surveyor, he stated that the man acted in defiance "of his authority, stating that his instructions are to do what he thinks proper in the plan- "tation under his care. I therefore think it necessary to report the fact, in order that "proceedings so entirely at variance with authority and good management may be at once "checked."

I have to desire that you will make such observations as you may wish and think proper on this passage of Mr. Clutton's Report, and state to me distinctly whether you ever did disobey any orders issued to you by Mr. Machen, or his assistant; whether you ever did represent to him that you had received any instructions which authorized you to do otherwise than to give implicit obedience to your superiors. You must be sensible that I never gave you any instructions whatever, and that Mr. Brown never gave you any instructions, except such as enjoined implicit obedience and subordination.

I must require you to give me an immediate and distinct reply in writing to this letter; and, if it shall not be satisfactory, I shall direct you to come to London.

I have to desire that you will abstain from all pruning of trees in the portion of the forest under your care.

I am, &c.
(signed) *T. F. Kennedy.*

No. 12.

Sir, Sallow Vallets Lodge, Lydbrook, 14 June, 1853.

I have duly received your letter of the 13th instant, and beg to state, in return, that I never did disobey any orders issued to me from Mr. Machen, or his assistants; and that I never did represent to him that I had received any instructions which authorized me to do what I thought proper.

In regard to the few trees that I pruned last pruning-season near my lodge, I may state that I did it for an experiment, with the view of seeing what the effects would be; they are so few in number that I scarcely think the work should be styled "operations." Mr. Clutton asked my opinion on the pruning-system; I told him that I did not approve of pruning trees above fifteen years of age; now, if I had commenced "operations," I would be acting against the dictates of my own reason.

I may further mention, that the only superior that I had a dispute with was Mr. Turnbull, he having frequently sent men into my inclosures to do work and to remove plants, without letting me know that such work was going on; now, if I did not happen to come on the men by chance, I could not give an account of these plants. I told Mr. Turnbull that he should let me know of such work going on in the inclosures that were given to my charge. I told him that my agreement was, to have the entire charge of my division, as regards thinning and clearing young woods, draining, fencing and drives, repairing, &c., under his superintendence, which he agreed to. This was all that ever passed betwixt me and my superiors here, and I am very sorry indeed that such a false report has reached you.

Hoping this will be satisfactory,

I am, &c.
The Right Honourable T. F. Kennedy. (signed) *James Gorrie.*

No. 13.

Sir, Whitemead, 15 June, 1853.

I have received your letter of the 13th instant, in reference to Mr. Clutton's statement in his Report to you on the affairs of this forest.

The conversation I had with Mr. Clutton was as follows: Mr. Clutton said that he had seen at the Sallow Valletts some large boughs cut off young trees, and asked if it was done with my sanction. I said, No, it was not; I had not been consulted, and that I did not interfere with the woodman of that inclosure, who considered himself authorized to manage the inclosure in his own way. This is, as far as I recollect, the substance, if not the exact words, of our conversation, and I said nothing about defiance of my authority. Indeed, I could not, as I had not then seen the trees which were said to be improperly pruned.

I have since seen the trees, and they are confined to a few near the house. It is more obvious and striking, and likely to attract the attention of Mr. Clutton and of others who have made remarks upon it, from the circumstance that our general rule has been not to prune oaks intended for the Navy at all, and the exceptions to this rule are very few; and

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certainly I did consider, from your letters of the 3d and 13th of November 1852, that such work as this was left to the entire and sole discretion of the woodman.

I should now remark that Mr. Clutton may have received information from other quarters, as Gorrie has acted altogether on his own responsibility in the management of his inclosure, without directions from Mr. Turnbull, under whom the woodmen on that side of the forest are placed, or from Mr. Langham, who has the direction of the preparation of the produce. Your letter of the 3d November 1852 says, that Gorrie is to be "in the position of a head "woodman, skilled in his profession, having the responsible charge and care of a certain "portion of the forest, having such men under him as may be necessary for the work "required to be done from time to time, and not in anything approaching to a subordinate "situation." This appeared to be inconsistent with, and to supersede, the authority of Mr. Turnbull and Mr. Langham; and, therefore, they have not interfered with his proceedings; but, if any misconception has arisen of the extent of the woodman's authority and responsibility, on receiving an intimation to that effect, Mr. Turnbull and Mr. Langham will be prepared to act according to your directions as to Gorrie and the other three new woodmen, who have hitherto been engaged with the bark, but will henceforward have to attend to their respective inclosures.

It so happens that one of the forest nurseries lies within the boundaries of Gorrie's inclosure, and is intended for the supply of the plantations in the forest generally. I wrote to Gorrie, telling him that the trees in this nursery must be left under the directions of Mr. Turnbull. I have desired Mr. Turnbull to put down what happened on his first seeing Gorrie, after the receipt of my letter, and I inclose his statement of the facts.

I can only say that I made no representation to you before, as I feared my motives might be misconstrued, and that it might be thought I was raising difficulties in carrying out a plan for the improvement of the forest. I would also add that, although I consider Gorrie wrong as to the trees in the nursery, I do not wish to make any charge against him, as I think he was acting *bonâ fide* according to his own opinion of the charge entrusted to him.

I am, &c.

The Right Honourable T. F. Kennedy. (signed) *Edward Machen.*

Copy, Mr. Turnbull's Statement.

The first time I saw Gorrie, after you sent him a note respecting the removal of the trees in the Bourts Nursery (which nursery I have always had the management of, no trees being removed without my direction, as it is the only nursery for supplying trees to the whole of the plantations in my division. The nursery happens to be in one of the inclosures under Gorrie's superintendence. It was the duty of the woodman, whom Gorrie succeeded, to keep the fences in repair, and also to see that the young trees were not damaged by trespass, &c.)—

I asked Gorrie if he had received a letter from you on the subject of the removal of the trees in the nursery. His answer was somewhat to this effect: "I have received a letter "from Mr. Machen, but do you think that I am going to be frightened, because you got "Mr. Machen to write me a letter of your own dictating?" He also signified that he should have the whole management of the nursery, and remove trees, when and where he thought proper, in his inclosures; and did I think he was to ask my permission every time he wished to remove trees? He farther said, did I suppose Mr. Brown had sent a man that he could not trust? and also that, as the subject had been bought on the carpet by me, he would see further about it, and that no men should work in the nursery, unless they were under his care or direction. If you remember, I named this at the time to you, and said I should not object to Gorrie's having the management of the nursery, providing you thought proper; and two boys were forthwith placed under his control.

No. 14.

My Lords, Office of Woods, &c., 16 June, 1853.

I have to acknowledge the receipt of Mr. Wilson's letter of the 10th of June, calling my attention to a passage in Mr. Clutton's Report on Dean Forest, recently referred back to me, in which it is reported that a Scotch woodman, recently employed in Dean Forest, had been engaged in the destructive operation of sawing off branches of young oak-trees, and had refused to attend to the directions of the deputy-surveyor on the subject, alleging that he had received instructions to undertake the independent management of the part of the forest committed to his charge.

I beg leave to state to your Lordships that this passage of Mr. Clutton's Report had not escaped my observation, and I must confess that I read it with astonishment, because if conduct so entirely unjustifiable on the part of the woodman, Gorrie, had occurred, I certainly had a good right to expect that the deputy-surveyor should have performed his first duty to me in reporting such unwarrantable conduct, which it would have been easy to deal with promptly and effectually; but it was reserved for Mr. Clutton's visit to the forest for him to be informed of the facts, such as they may turn out to be. Much mischief may have been done in the interval, and, instead of such mischief being instantly prevented, a repre-

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sentation is made, not to me, but to a third party in a subordinate situation, by which it becomes, by implication, a complaint against me quite as much as against the woodman, inasmuch as I am responsible for having placed the woodman where he is; and it is obvious that such is Mr. Clutton's meaning, indirectly to cast blame upon me, under whom he is called on to act. The circumstances are such that a strict investigation into the facts is indispensable, and I have taken steps to make such investigation, the result of which I shall, in due time, report to your Lordships. In the meantime, the woodman, Gorrie, has been instructed to abstain from all pruning of trees in the portion of the forest under his care.

In the conclusion of Mr. Wilson's letter, it is stated that my Lords postpone any observations on the appointment of these persons (four woodmen) until they shall have the whole question of the management of the forests under their review.

I hope that I shall be pardoned by your Lordships if, in consequence of the tone and spirit of Mr. Clutton's Report, I am desirous not to postpone, on my part, some observations on the subject of these woodmen, which I am the more desirous to make, because it seems to me that Mr. Clutton has considered it to be his duty, and to be consistent with propriety in him, a surveyor called in, to sit in judgment on my conduct as a Commissioner of Woods, rather than to confine himself to the professional advice which I should have thought that it was becoming in him to offer.

I have to state that, in the autumn of last year, my attention was attracted by the subject of the woodmen in Dean Forest, and I felt that the establishment was inefficient, from the age and the infirmity of many of the woodmen, and I called on Mr. Machen to report the names of the four who are the least capable of doing their duties, intending that four should be discontinued, and that their places should be filled by active and skilful men. In the meantime, a woodman, James Thomas, was unfortunately killed by an accident, so that I restricted my intention to three, in addition to the vacancy created by Thomas, and I reported my views and intentions to your Lordships by letter, dated 31st August 1852, in which I stated that "their three places and that of James Thomas, in all four, should be filled up by "the best woodmen who can be procured; and I am taking all pains to find such persons, "and I have no doubt that I should succeed." Thus your Lordships were, in August last, apprized of my views and intentions; and, in the subsequent correspondence which took place on this subject, it had not pleased your Lordships to make any intimation to me that you disapproved of my intention to endeavour to procure four efficient woodmen; and I never imagined that the employment of men, at weekly wages of 15*s.* a week, was an employment of that character which could render it at all proper or necessary that I should apply to your Lordships with respect to the individuals to be so employed, who could properly be employed only on the ground of their good qualifications as woodmen, of which your Lordships, necessarily, could have no knowledge. But I proceeded slowly, and I only supplied in October the single opening made by the death of James Thomas, and that opening was filled by James Gorrie, whom I took much pains to find. I delayed, until the close of the year, viz. the 31st of March, the employment of three other woodmen, whom by that time I had been enabled to discover; and, in the meantime, your Lordships had sanctioned the retirement of John Hatton, Thomas Lowe, and William James; but, before the 31st of March, John Hatton had died, such had been his previous inability to perform his duties, and such his infirmity; therefore, only two woodmen, Thomas Lowe and William James, have survived to receive the weekly allowance which, on their removal on the 31st of March, has been sanctioned by your Lordships. Thus, four woodmen have ceased, two of whom have received a weekly allowance, and four efficient and skilled woodmen have been placed in the forest, at weekly wages of 15*s.*, expressly on the condition that in no event shall they have a right to a retiring allowance; that they are liable to be removed at any time, and, consequently, more likely to continue to discharge their duties in an efficient manner than persons who, as hitherto, have considered themselves to have a vested interest in their places, thereby having a species of security against being removed, except for aggravated misconduct.

By the introduction of four woodmen from another country, trained in the habits of which I approve, I hope to introduce a spirit of emulation in the forest; and, in one of Mr. Brown's Reports, he recommends the establishment of a scale of rewards for the best managed portions of the forest, after the lapse of a certain period; and thus I hope that a fair contest for superiority of management will be excited between the native woodmen and those I had brought from another country. I was especially anxious to have four new men skilled in the drying of bark, otherwise than by laying it on the wet grass, and who were also accustomed to felling all trees, before they were stripped; the contrary practice to which Mr. Clutton is unable to defend, but which in 1849 he did not notice, and which never was noticed by any one until I went into the forest in June 1852. The change in this last point I have been unable to accomplish, although I gave timeous notice of my wish in December 1852; and Mr. Machen has personally admitted to me that, from December to the end of March 1853, he made no endeavours whatever to succeed in accomplishing my object, leaving it to the last moment, when it was, of course, impracticable to effect it with unwilling parties. If he had accomplished it, even to a small extent, it would have been satisfactory; although, if he had made all parties aware that he was earnestly intent on accomplishing my object, I can entertain no doubt whatever that so simple an affair could have been carried into effect to the full extent of my desire.

Connected with the subject of the woodmen, I find it necessary to advert to some circumstances which occurred soon after Gorrie's arrival in the forest. By my directions, Mr. Brown had engaged him as a skilled woodman, capable of managing a certain area of woodland, with men under him; and he had complained to Mr. Brown, naturally, as I think, that

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he was not treated as he had a right to expect; being placed by Mr. Machen, or his assistant, to do the work of a common labourer, in repairing fences; a proceeding which I thought improper, and calculated to dissatisfy a deserving workman, and to place him in a degraded position. Mr. Brown, having mentioned this matter to me, I wrote to him in the following words: "I understood that Gorrie accepted the place, and I think you did the same; of "course, if he did not remain, he could not be paid his travelling-expenses. I have written "to Mr. Machen, that I do not think he ought to be put upon fences, except to superintend "any necessary labour upon them; it is not skilled work, on which he could prove his "qualifications as a trained woodman; and have desired him to speak to Mr. Langham, and "see to this. I should think it would disgust him during his month of trial."

To this communication to Mr. Brown, I received from him a reply, of which I annex a copy in the Appendix, dated 1st November 1852, from which your Lordships will perceive that the arrangement with Gorrie was perfectly explicit, and in particular that he was to have the management of a certain district as woodman, "under the direction of the deputy-surveyor."

I thereupon wrote to Mr. Machen, on the 3d of November, and I received Mr. Machen's reply, dated the 8th. Your Lordships will perceive, from Mr. Langham's letter, inclosed in Mr. Machen's of the 8th, that Gorrie received his orders from Mr. Turnbull; so that it is here recorded, that, at that time at least, he was acting under orders issued by his superiors, and no disobedience was talked of at that time, although Gorrie had been dissatisfied with the circumstances in which he was placed. Thus, Gorrie was, by my order, placed in his right position; and, on the 13th of November, I again addressed a letter to Mr. Machen, not only on the subject of Gorrie, but on some other important matters connected with the management of the forest. To this letter, Mr. Machen replied on the 22d of November by letter, in which he proposed that some of my wishes respecting the management of the forest should be postponed to a future year, stating as a reason, that "I do not think our present "woodmen are competent to the undertaking." He also says, that "I also do not fully un-"derstand to what extent you wish the inclosures left to the woodmen, *i. e.*, whether you "would leave it to them to sell the produce, and receive the money. I make this inquiry, because "Mr. Langham tells me that Gorrie is under the impression that he is to do so." I acceded to Mr. Machen's recommendation, as to postponing certain changes which I wished to effect, because I saw that it would be quite impossible to accomplish them; and, with respect to Mr. Machen's question as to the woodmen selling the produce, and Gorrie's impression upon that matter, I stated that there was no authority whatever for such an impression, and that as to the woodmen selling produce and receiving money, I authorized no change of system whatever from that which had hitherto existed in the forest.

I annex a copy of my letter to Mr. Machen, of the 11th of December, which touches not only upon the topics now adverted to, but because it in truth settled all the more important affairs of the forest for the year about to commence on the 1st of April then instant.

I also annex a copy of a letter which I addressed to Mr. Brown on the 25th of November, after I had received his three first reports, and previously to my having received his three last reports; and thus your Lordships are in possession of a knowledge of the more important parts of my proceedings during the period in question, with reference to the management of Dean Forest.

I have, &c.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury.

(signed) *T. F. Kennedy.*

No. 15.

My Lords, Office of Woods, &c., 17 June, 1853.

I BEG leave to advert to my letter of the 16th of June, having reference to the passage in Mr. Clutton's Report on Dean Forest, respecting the conduct of the woodman, Gorrie, in cutting off the boughs of oak-trees, in which I stated that I had taken steps to ascertain the facts of the case, which must necessarily be the basis of all opinion on the subject; and I have now to acquaint your Lordships that, on the 13th of June, I addressed a letter to Mr. Machen, and another letter to James Gorrie, calling for distinct explanations, and I annex copies of these letters for your Lordships' information.

I also annex, for your Lordships' information, copies of the letters which I have received, in reply.

1st. A letter from Mr. Machen, dated 15th June, inclosing a statement from Mr. Turnbull.

2d. A letter, dated 14th June, from James Gorrie.

On these letters, it is scarcely necessary that I should offer any observations to your Lordships, because it appears from the statement of Mr. Machen, that the passage in Mr. Clutton's Report is wholly unsupported by the facts of the case, and that Mr. Machen never said anything of Gorrie having acted in defiance of his authority, and, if Mr. Machen chose to put a construction upon my letters of the 3d and 13th of November (copies of which were transmitted to your Lordships, with my letter of the 16th), which he was not warranted in doing, that, at all events, can form no ground of accusation against the woodman, Gorrie, to whom I never issued any instructions whatever. When Mr. Machen brought one point under my consideration, respecting the receipt and payment of money, I distinctly told him that I authorized no change whatever, and Mr. Machen had no right whatever to conclude that, while I negatived all change on one subject, I authorized changes in other respects which had

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had never, for an instant, entered into my mind. Mr. Brown never issued any instructions to James Gorrie, and his letter, of the 1st of November, 1852, states the terms upon which Gorrie was engaged, viz., to act, "under the direction of the deputy-surveyor." If Mr. Machen chose gratuitously to withhold such directions, for that course of proceeding Gorrie cannot be responsible, nor could I have anticipated such a relaxation of duty, on Mr. Machen's part.

The letter of Gorrie, which I annex, distinctly negatives Mr. Clutton's statement, while no doubt it must be borne in mind that Gorrie is the party concerned; but, after all, it turns out, both by Mr. Machen's and Gorrie's account that, instead of a system of mischievous operations, as represented by Mr. Clutton, conducted by Gorrie, he performed a very foolish act with respect to a small number of trees, and would have acted far more judiciously, if he had abstained from doing anything of the kind.

I have, &c.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury.

(signed) *T. F. Kennedy.*

No. 16.

Sir, Office of Woods, &c., 17 June, 1853.

In reference to the passage in Mr. Clutton's Report, I have now to transmit, for your information, copies of letters which I addressed on the 15th of June to Mr. Machen and James Gorrie, respectively, requiring explanations, and I also annex copies of letters, in reply, from Mr. Machen and James Gorrie, dated the 15th and 14th of June respectively, and a copy of a letter addressed by me to the Lords Commissioners of Her Majesty's Treasury, transmitting the above correspondence, all which I now transmit to you, as it is indispensable that you should be apprized accurately of everything which takes place on this subject.

I also transmit to you copy of a letter, dated the 16th of June, which I addressed to the Lords Commissioners of Her Majesty's Treasury, preliminary to the correspondence above referred to, and also on the general subject of the Scotch woodmen adverted to in Mr. Clutton's Report.

I am, &c.

Mr. James Brown. (signed) *T. F. Kennedy.*

No. 17.

My Lords, Office of Woods, &c., 21 June, 1853.

I have to acknowledge the receipt of your Lordships' letter of the 7th June, returning to me Mr. Clutton's Report, dated the 28th of May, with the accompanying schedules, on the subject of Mr. Brown's Reports relating to the Forest of Dean and Highmeadow Woods, and directing that Mr. Clutton's remarks should be submitted to Mr. Brown, for any reply he may wish to make thereto, and that he may be desired to do so with all possible speed.

I have to acquaint your Lordships, that I immediately had a copy of these papers made and transmitted to Mr. Brown, with your Lordships' instructions thereupon; and I have been informed by Mr. Brown that he will proceed to act on these instructions with all the speed which is consistent with his other unavoidable occupations.

Mr. Clutton's original Report, being a registered document of this department, to which it was addressed, it has appeared to me to be necessary that it should remain in this office; and, in consequence, I have had a copy very carefully made, which I now transmit to your Lordships,—the course which I should have taken in the first instance, but that I was desirous to put your Lordships in possession of Mr. Clutton's Report, when I received it on the 30th of May, without an hour's delay.

I have, &c.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury.

(signed) *T. F. Kennedy.*

No. 18.

Sir, Treasury Chambers, 21 June, 1853.

I am directed by the Lords Commissioners of Her Majesty's Treasury to acquaint you that, on perusing the correspondence annexed to your letter of 16th instant, respecting the conduct of a Scotch woodman, employed in Dean Forest, in sawing off branches of young oak-trees, their Lordships are impressed with the opinion that the misunderstanding which has unfortunately arisen regarding the position occupied in Dean Forest by the woodman in question, James Gorrie, is mainly owing to the anomalous manner in which Mr. Brown has been employed in concerns connected with the management of the forest, while Mr. Machen still holds the responsible office of deputy-surveyor.

It appears, that the terms on which the services of James Gorrie were engaged, were settled by Mr. Brown, and that a question subsequently arose regarding his employment on work of a different character from that for which he was engaged. You then wrote to Mr.

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Machen, to explain the position which you intended this person to fill, which you described as that of "head woodman, having the responsible charge and care of a certain portion of "the forest, and not in anything approaching to a subordinate situation."

In a subsequent letter, dated 13th November 1852, you expressed your satisfaction at learning that Gorrie had been placed "at the head of his business and in charge," and directed that 50 men should be placed under his immediate control. In a letter, dated the 11th December, the following passage occurs: "The woodman, Gorrie, must be perfectly conversant "with the system which the Commissioner desires to have pursued, so that no practical diffi- "culty can arise."

My Lords are satisfied that you did not intend that this labourer should be put in the independent position which he has since assumed; but, when they bear in mind that, in some important points of management you were desirous of introducing a new system, for the carrying out of which, as it appears, you had no reliance on the co-operation of the established officers of the forest, and that Gorrie was selected by Mr. Brown, without, so far as my Lords learn, the cognizance of the deputy-surveyor, for the purpose of carrying on this system, it appears to their Lordships that the expressions which they have quoted above were calculated to mislead Mr. Machen, and to deter him from enforcing that control over Gorrie which you intended him to exercise.

James Gorrie himself appears clearly to have presumed on his supposed position, when he claimed the right of selling the produce, and receiving the money; and my Lords observe that, when you informed the deputy-surveyor that Gorrie had no authority whatever for the impression he had formed on this point, you desired that he might be apprised that "as "respects selling produce and receiving money, the Commissioner authorizes no change of "system whatever from that which has hitherto existed in the forest;" thus strengthening the impression that, in other matters, Gorrie had the responsible charge of a portion of the forest, and was not in a subordinate situation.

It moreover appears to my Lords that, whatever may have been the impressions entertained by the deputy-surveyor on the subject, James Gorrie has himself assumed an independent position which the conditions of the agreement made with him by Mr. Brown did not warrant, and that a clear intimation ought, therefore, to be made to him in the terms of the letter of this Board of the 10th instant, through Mr. Machen, that he is to yield obedience to the orders of the deputy-surveyor.

I am, &c.

The Right Honourable T. F. Kennedy. (signed) *James Wilson.*

P. S.—I am to add, that since the foregoing letter was commenced, my Lords have received your letter of the 17th instant, and are glad to observe that the experiments of the woodman, Gorrie, in pruning trees, were confined to a few near the house occupied by him.

In other respects, the papers transmitted confirm the impression entertained by my Lords regarding the independent position assumed by this person.

At the same time, my Lords feel it due to Gorrie to say, that the charge brought against him by Mr. Clutton has not been sustained in the two main points; viz. first, that he had commenced operations by cutting off boughs of oak of four or five inches diameter, which naturally led my Lords to suppose that he had adopted this as a system for the management of the inclosure under his care; whereas, it appears that, however irregular it might be, it was confined to a few trees in the immediate vicinity of his dwelling, as an experiment, "at "the last pruning-season," while Gorrie expressed a decided opinion against it as a system; and secondly, that he had done so in defiance of the authority of the deputy-surveyor; whereas, it appears, that Mr. Machen was not even aware that these trees had been pruned when Mr. Clutton spoke to him on the subject; and adds, that he "said nothing about defiance of his "authority." It is, therefore, plain to my Lords that Mr. Clutton's statement was made on a misunderstanding of the facts. My Lords must, however, add that this explanation does not alter their opinion as to the inconvenience which has arisen, and still exists, from the irregular and anomalous manner in which authority is exercised at present in the management of this forest.

(signed) *J. W.*

No. 19.

Sir, Office of Woods, &c., 22 June, 1853.

In reference to the recent correspondence which has taken place respecting the woodman, Gorrie, and in particular referring to your letter of the 15th of June, I am desirous, without delay, to state to you, that you had entirely misapprehended the meaning of my letters of the 3d and 13th November last, in supposing that Gorrie had any authority to act otherwise than in strict subordination to your instructions; and I consider that my reply to you, on the subject of Gorrie paying and receiving money, was conclusive on that point; and it had never entered into my mind that I had authorized any relaxation in the exercise of your authority over Gorrie.

I have, therefore, to request that you will read this letter to him, in order that he may distinctly understand that such always was, and is, my intention; and I have also to request that you will read the letter to the other three Scotch woodmen, in order that they may be equally apprized of my instructions on this subject.

I am, &c.

E. Machen, Esq. (signed) *T. F. Kennedy.*

No. 20.

Sir, Whitemead Park, 28 June, 1853.

I HAVE received your letter of the 22d instant, stating that I had entirely misapprehended the meaning of your instructions of the 3d and 13th November 1852, respecting the woodman, Gorrie. I have read your letter to Gorrie, and the other three new woodmen, who are now prepared to receive their instructions from Mr. Langham and Mr. Turnbull, in their respective departments.

I certainly thought, on reading those instructions, particularly those contained in the letter of the 3d November, that it would accord more with your intentions to leave the management of their inclosures to the woodmen, without interference on our part.

I am, &c.

The Right Honourable T. F. Kennedy. (signed) *Edward Machen.*

No. 21.

Sir, Arniston, 5 July, 1853.

I HAVE had the honour to receive a letter from the Office of Woods and Forests, dated the 7th instant, apprising me that the Lords Commissioners of Her Majesty's Treasury had returned to you a Report by Mr. Clutton, in reference to my several Reports on the Forest of Dean and Highmeadow Woods, and directed that it might be transmitted to me for any reply I might wish to make thereto; and I have since had the honour to receive your letter of the 9th of June, transmitting a copy of the said Report by Mr. Clutton, dated the 28th of May, together with two accompanying papers; the one, relative to the periods at which the several plantations in the Forest of Dean were enclosed and subsequently thinned; and, the other, to the condition of the inclosures in Dean Forest, as taken from my Report, with Mr. Clutton's remarks thereon.

Having carefully considered Mr. Clutton's Report, in reference to my several reports on Dean Forest and Highmeadow Woods, I have the honour herein to state, for your information, my opinion relative to such points in it as I consider have an important bearing on the subject under notice.

In discussing the several branches of the subject, I propose to take them up in the order in which they stand in Mr. Clutton's report. The first adverted to, as bearing on my reports on Forest of Dean, has reference to the size and age of the trees in the inclosures. Relative to this point, I have stated, that, "the present average diameter of the trees in Dean Forest, of "40 years of age, scarcely comes up to eight inches at six feet from the ground; while, in "well-managed plantations in the north, where the soil and situation are very inferior to "those of the Forest of Dean, the average diameter of oak-trees of the same age is fully nine "inches at the same height." Mr. Clutton, in his introductory remarks, states, in reference to this:

"It is evident that the imputation here conveyed is sustainable only on the assumption "that the trees are of 40 years' growth. But, by the statement by the deputy-surveyor, "marked A., it appears that the average age is 30 years, and not 40 years, and this statement "is confirmed by the several woodmen who have had the charge of the plantations, &c.;" and that "the enclosures were mended over with seedling plants from time to time; but, in 1821, "and 1822 (the steps taken under the contract of 1809, and consequent thereon, being found "substantially a failure) it was deemed advisable to plant young trees, and, as appears from "information furnished by the deputy-surveyor and his assistants, 2,000,000 oaks were "planted in those years, and they required filling up for some years afterwards."

In answer to these statements, I have to remark, first, that during my survey of the Forest of Dean, I was accompanied by Mr. Langham, the assistant deputy-surveyor, who informed me that the average age of the several plantations in the forest, at the time I inspected them, was about 40 years. Although I had this information from one of the officers of the forest, I was not disposed, from the circumstance of the trees being comparatively small, to rest my belief that the trees were of this age, on his assertion alone; and, with a view to arrive as nearly as possible at a correct conclusion, I, in many instances, examined the annular rings of wood on the stoles of trees which had recently been cut, and found these to number from 37 to 41. On this ground, therefore, independent of Mr. Langham's statement, my opinion is decided as to the age of these trees; and I confidently assert that, under careful examination, it will be found that on an average they are, if not 40, at least 39 years old.

This, I think, may also be proved from the statement given by Mr. Machen relative to the periods of inclosure, marked A., and referred to in Mr. Clutton's Report. From that statement, it appears that there were 10,325 acres of inclosures made in Dean Forest during the period between the years 1809 and 1818, both inclusive (19,233 before 1816). Now, Mr. Machen says, that "these inclosures were planted soon after they were inclosed." From this, it is to be inferred that the dates of planting must pretty nearly correspond with those of inclosure; and, assuming this to be the fact, the middle year of the period of nine years referred to, which is 1813, may fairly be assumed as designating the average age of the trees. This would give an average of 39 years over the whole inclosures, which pretty nearly corresponds with the information I received from Mr. Langham, and of course with the statement in my Report.

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It also appears, from the Statement, marked A., already referred to, that, in 1821 and 1822, there were 2,000,000 oaks planted. From this circumstance, Mr. Clutton and Mr. Machen assume that "30 years would be a fair average of the ages of the trees in all the inclosures." How they could put forth a statement so entirely at variance with the very data on which they profess to found it, I cannot conceive; unless they mean it to be understood that very few of the trees planted previous to 1821 and 1822 succeeded. This is manifestly implied in their reasoning; yet, it is perfectly certain that the greater part of the trees originally planted must have grown, otherwise many of the inclosures would have remained without a crop; for the number of oak-trees said to be planted during these two years was not sufficient to replant the twelfth part of the land then under inclosure.

From these considerations, it seems to me indisputable that the average age of the trees in Dean Forest is at least 39 years, and that at eight inches diameter they are small of their age, as compared with trees in well-managed plantations in the north. In proof of this, I may remark, that I have to-day measured trees in an oak-plantation on this estate which are only of 32 years' growth, and find their average diameter eight inches at six feet from the ground, being equal to those in the forest, although eight years younger.

The next point that Mr. Clutton adverts to, in his introductory remarks, refers to the 811 acres of young plantation on the Highmeadow Estate. In my Report, I state that these plantations are "in a very flourishing state;" and, with reference to this, Mr. Clutton says, "I desire "to point out that this plantation (as well as those above mentioned) has been raised by the "present officers of the forest; and to add, that I am satisfied that the management has "been judicious and effective," &c. With regard to this, I have to state that, in all cases where I am called upon to inspect plantations, I endeavour to report faithfully my opinion as to the real condition of each plantation as it comes under my notice. On this principle, I maintain that the plantations in the forest are inferior of their age, and that this is the result of defective management, while the plantations referred to on the Highmeadow Estate are in a very satisfactory state, and that evidently in consequence of a better system having been carried out in them. I have no doubt that, if strict inquiry be made, it will be found that these Highmeadow Plantations have been reared, not under the direct control of the present officers of the forest, as has been asserted by Mr. Clutton, but more directly under the superintendence of the late Mr. Turnbull.

Mr. Clutton next refers to the conduct of James Gorrie, one of four woodmen who were lately sent to the forest from Scotland. In reference to him, Mr. Clutton says, "that he "had commenced operations by cutting off boughs of oak of four or five inches diameter. "Upon expressing my surprise to the deputy-surveyor, he stated that the man acted in "defiance of his authority, stating that his instructions are to do what he thinks proper in "the plantation under his care." This appears to me very remarkable, for, as I had the honour to receive instructions from you to engage James Gorrie, to act as a woodman in the forest, I gave him instructions to the effect that he was to have the management of his district, under the control of the deputy-surveyor. I may, however, simply remark on this case that, if James Gorrie did act in defiance of the authority of the deputy-surveyor, he ought immediately to have laid the fact before the Commissioner in charge, who no doubt would have supported his authority, and made a proper example in a case so incompatible with the maintenance of authority and with good management; but, from knowing the man's character, I am disposed to doubt the fact.

Mr. Clutton goes on and states, in reference to the arrangements which, in my Report, I have proposed with respect to the woodmen of the forest, that "the proposed arrange-"ment is, that the deputy-surveyor and his assistants shall only generally superintend, and "that 12 woodmen shall manage the plantations (each controlling his own), and receive, and "pay moneys." In making this statement, Mr. Clutton has not understood, or has misrepresented, the bearing of my Report; for I distinctly mention in it, that each woodman shall, "in all his professional movements, be subject to the control of the deputy-surveyor;" and, as to the woodmen receiving and paying moneys, that is neither proposed nor implied in any Report by me.

Having thus briefly discussed the chief points in the introductory part of Mr. Clutton's Report, I come to advert to the substance of his remarks on my six Reports on Dean Forest respectively, and shall begin with the first in order, which relates to the best mode of disposing of the timber not suitable for Navy purposes, and to the introduction of sawing-power by steam.

In the Report just referred to, I recommend that, in order to realize higher prices for the rejected timber than have hitherto been obtained, portable sawing-power should be introduced into the forest, whereby purchasers of the description of timber under notice will have every possible advantage for its conversion and manufacture, and, consequently, will be enabled to give a fair price for it; and also, that agents should be appointed for the sale of the timber in the most important towns of the kingdom.

The substance of Mr. Clutton's Report, in reference to these recommendations, amounts to this: 1stly, That he is of opinion that the most advantageous method of dealing with the rejected timber is, to sell it in the rough state, and, consequently, that sawing-power should not be introduced; 2dly, That Dean Forest is well situated for carriage and removal of timber; and, 3dly, That if agents were appointed in important towns, the business would be liable to risks.

I shall only make a few brief remarks on each of these three heads; and, with regard to the first, Mr. Clutton says, "I do not see how any better mode can be adopted than to sell "the timber in the rough."

From this statement, it may be safely inferred, that Mr. Clutton has never experienced the

the great advantages of having a sawing-power, for the conversion and manufacture of timber, where there are extensive plantations; and, although he does "not see" a better mode, and is inclined to follow an old and beaten track, others have seen one, and have adopted it; and, if Government do not take advantage of machinery, as it is now applied to the general conversion of timber by spirited and extensive private proprietors, its forests, which ought, both in respect to culture and profitable results, to be looked up to as a model in that branch of rural economy, will, without doubt, remain comparatively unprofitable. I would, therefore, again strongly advise that sawing-power should be introduced into the Forest of Dean, because from actual experience I am assured that it is certain to be attended with profitable results, in respect both to the rejected timber and miners' timber. I have myself, for a period of nearly 12 years, had the management of a sawing-power upon Mr. Dundas's property, to which it has been of immense advantage. In short, the most intelligent and improving landed-proprietors in the north, are now so well aware of the advantages of sawing-power, that they are generally having them attached to their establishments, and consider them indispensably necessary for the profitable maintenance and management of their estates; and I cannot but express my surprise that Mr. Clutton should advise Government against the introduction of a power which is thus ranked so high by all intelligent woodland-proprietors. Another consideration, which ought to induce Government to adopt portable sawing-power in their forests generally, is the rise of wages which must soon take place among the labouring classes, by which the general expenditure of the labour-department will, in all probability, be increased at least one-fifth. On this point, it may be sufficient for me to remark that, with a good portable sawing-power in the forest, and an experienced and well-directed system of management, at least 25 per cent. of saving may be effected in the cutting of miners' timber and cordwood alone, independent of any further advantage.

Upon the second head, Mr. Clutton says, "Although, for mineral purposes, further railway-"accommodation may be required, yet Dean Forest is, upon the whole, well situated for "carriage;" and, "in being able to affix 2*s.* per foot as the price of the whole trees, Mr. "Brown negatives his own opinion of the want of increased facilities."

The River Wye being situated at a considerable distance to the north, and the River Severn at a considerable distance to the south of the forest, little or no advantage, as respects the removal of timber, can in reality arise from them. As to the tramways, connecting the two rivers, they are in the hands of mining-parties, who keep them entirely for the removal of their own minerals from the forest, and not for the accommodation of wood-merchants; and I am convinced that any party who might wish to remove his wood-produce by them, would be charged at a much higher rate than would be sufficient to cover the expense of its removal by horse-power; so that, in reality, these rivers and tramways afford no advantage to the Crown, as regards the removal of its timber-produce.

As to being able to affix 2*s.* per foot as the price of the whole trees, it was only a few of the very best of the trees that I valued at that rate; and I may also state, in reference to this that, had I found a railway, with locomotive steam-power, connecting the forest with the great thoroughfares of the country, I would have valued not only the same trees, but all the rejected timber, at a much higher rate per foot than the several prices I affixed to them.

As to the appointment of agents for the disposal of timber, it may be sufficient for me to remark that, for many years past, we have had such agents appointed for the sale of timber from the estate of Arniston, and have found the system to work well, and liable to none of the objections which Mr. Clutton alleges.

I now come to consider Mr. Clutton's remarks on my Second Report, which has reference to the system of stripping the bark from trees in their growing state, and also to the practice of drying bark upon the ground, instead of upon temporary stages.

Mr. Clutton says, "I do not think the practice of peeling the trees standing can be an "economical one;" On this branch of the subject, therefore, he may be said to agree with me. He does not, however, give so decided an opinion relative to the practice of drying bark upon the ground; for, with regard to this, he says, "Several of the largest timber-merchants have "tried the system advocated by Mr. Brown, and have gone back again to the old plan of setting "the bark against the pole;" and that "my own practice has been to place the bark perpendi-"cularly against a pole;" and further, that "I am not, however, wedded to the latter system "for all localities." From these statements, it must be inferred that Mr. Clutton is undecided as to which is really the best method of drying bark, suitable for all localities. That several timber-merchants tried the system "advocated" by me, and have gone back again to their old plan, is no proof that the system, not only "advocated," but practised by me, is not by far the better of the two; for it is not stated whether those who thus tried the system understood it sufficiently to prove its merits.

On a point so plain as this, it would be superfluous in me to multiply words; for the practice, although generally adopted in the south of England, is wrong in principle, and can only be supported by arguments based on prejudice. Mr. Clutton himself makes no attempt to defend the plan he adopts. It cannot, for one moment, be supposed that bark, which is a porous substance, will not, when left in contact with the ground, absorb a considerable portion of moisture from it; nor will it be denied by any one at all acquainted with the ordinary laws of nature, that a substance raised above the ground, free from contact with it, and entirely surrounded by the air, will become dry in a much shorter time than it could possibly do under conditions the opposite of these. Although parties in England may have for a time adopted the plan I practise for the drying of bark, and afterwards abandoned it, because they thought it did not answer so well as their former plan, it was not that the principle was wrong, but that the parties carried it imperfectly, or defectively, into execution.

If I am not mistaken, the plan of drying bark which I have recommended in these Reports,

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has, to some extent, been carried out in the curing of the timber-bark in Dean Forest this summer, under the management of one of the woodmen who lately went there from Scotland, and I beg to suggest that inquiry should be made among the purchasers of bark in the neighbourhood of the forest, as to whether it has not, in this case at least, been better cured this season than it has hitherto been.

The system of drying the bark against the pole, practised in Dean Forest, is the cause of so low a price being generally obtained for it; and I have no doubt that, if the plan recommended in my Report were adopted, much higher prices would be realized.

With regard to my Third Report, which relates to the condition of the inclosures, I find it will be necessary to discuss it at some length, and to advert to several points, in the order in which they stand in Mr. Clutton's Report. Therefore,

Firstly. In referring to the system of thinning which has hitherto been practised in Dean Forest, he says, "Mr. Brown states, that the system of allowing the trees to remain without "thinning for so long a period as eight years, is very injurious to the health and value of the "crop, leading to the inference that this was the custom of thinning in the forest. He does "not appear to have ascertained the facts as regards the period at which the deputy-surveyor "performed the thinning," &c. &c.

In my Third Report on Dean Forest I state, that "the inclosures have been thinned "at intervals of from six to eight years," and that "I have to remark, that to this "point of management is chiefly to be attributed the inferiority in size of the trees in "the forest." Although Mr. Clutton tries to refute this statement, the fact cannot be denied, and may be proved from the very statement by the deputy-surveyor (marked A.), to which Mr. Clutton refers. For example:—

The first inclosure named in the statement is Bromley, which appears to have been thinned in 1835, but not again till 1844 and 1850, which gives periods of nine and six years' interval respectively, and which makes the case even worse than I represented. The second inclosure is Shutcastle, which appears to have been thinned in 1831, 1838, and 1845, which again gives periods of seven years' interval in each case. Crabtree Hill and Beechenhurst inclosures, also appear to have been thinned at intervals of seven years, and Holly Hill at periods of eight and six years respectively, as well as many others of the inclosures on the list, which have been thinned at equally distant and irregular periods, and to which it is unnecessary individually to advert. It is worthy of remark, however, that from the Statement, marked (A.), it appears that Serridge inclosure had stood unthinned from the year 1832 to 1843, a period of eleven years, which at once points out that no regular or definite system has ever been carried out for the proper management of these woods. Hence, they are now found inferior of their age. Several inclosures have, it appears, been thinned more frequently than those to which I have above adverted, but, as the thinning of those appears to have been done on parts only of the respective inclosures named, those cases are not applicable to the point under discussion.

2dly. Mr. Clutton states, in reference to my recommendation of thinning all the inclosures once in each period of five years, "The deputy-surveyor, I think, was quite right "in thinning the plantations at irregular intervals, as they may be found to require it." From this statement, it is to be inferred that Mr. Clutton is not acquainted with one of the most important improvements recently introduced into forest-management; namely, that of regular and periodical thinning. It is not to be expected, therefore, that he can appreciate the value of my recommendations in this respect. "To thin plantations at irregular "intervals, as they may be found to require it," was the mode of our forefathers nearly a hundred years ago; but we, who live in a time of improvement, have found that, in order to be really successful in forest-management, regularity in all thinning-operations must necessarily be strictly attended to; and this not only at a given age of the trees, but at all stages from the time that thinning is first commenced, to the period at which they become somewhat matured, and consequently fail to grow so rapidly.

3dly. It is next stated, that "Mr. Brown remarks upon certain of the inclosures, viz., "Stapledge, Serridge, Birchwood, &c., that they have been overthinned. This apparent over-"thinning is stated to have partly arisen from the circumstance that orders were some years "since given to encourage the Spanish chestnut trees," and that "of late years, it has been "found that the greater part of these chestnuts have shown symptoms of shake and "unsoundness, and their removal was, therefore, three years since, decided on."

This statement is no doubt correct, in so far as respects the orders for the cutting away of the chestnuts; but the deputy-surveyor did not act as a prudent and experienced manager of woods would have done, in removing the chestnut trees so suddenly as he has done. Had an experienced and intelligent forester been requested to remove them, he would have taken them out gradually, as occasion required, and with a decided view to the future health of the oaks; but, he would have avoided overthinning of the woods, and thereby lessening the future value of the crop, as has actually been done in respect to the inclosures referred to; for the overthinning which has been made in these is real, and not apparent, as Mr. Clutton has stated.

In further referring to the overthinned inclosures, Mr. Clutton states, "Mr. Brown, in "remarking on the thinning, says that Serridge, which has only 140 trees to the acre, is "much too thinly clad; but I must be allowed to state that great difference of opinion exists "as to the number of trees at the different ages." I readily admit that difference of opinion exists as to the number of trees which ought to be on an acre at a given age, but I am at a loss

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a loss to understand how Mr. Clutton can reconcile this statement with the system of thinning which has been practised in Dean Forest. For example: we find that Serridge inclosure was made in 1810, and that, at the present time, there are, on an average, 140 trees to the acre; while Shutcastle and Sallow Vallets inclosures were formed in 1812, only two years after the former. From this close approximation as to age, we should expect to find the number of trees on the acre pretty nearly alike in the three inclosures. The fact, however, is that, although the trees in these three woods are very similarly circumstanced, as respects soil, situation, and age, at the time I visited the forest there were, on an average, 290 trees to the acre in Shutcastle; and, in Sallow Vallets, there were no fewer than 300; in both cases, more than twice the number of trees that are to be found in Serridge inclosure. Despite these unequivocal manifestations of great mismanagement, Mr. Clutton says, "I am satisfied that the management has been judicious and effective; and that the interests of the Crown have been ably protected."

4thly. Mr. Clutton remarks, in reference to the management of Dean Forest generally, "Nothing can, in my opinion, better show the great attention paid by Mr. Machen to the duty of thinning the plantations than a reference to the Paper (A.)," &c.; and I venture to affirm, that upon no "estate in England can there be found better oak-plantations, or woods of better growth, than these in Dean Forest. They reflect the greatest credit upon all concerned, looking to the fact that, though the land was inclosed between the years 1810 and 1817, the first planting by contract was almost entirely a failure; and, until 1821–22, it was not completed."

I have already shown, from the very paper referred to by Mr. Clutton, that the thinning of the plantations in Dean Forest has not been properly conducted; had it been so, I would not have found, in 1852, only 140 trees on the acre in Serridge inclosure; while, in others of very nearly the same age, and of similar soil, &c., I found from 290 to 300. This fact seems to me very plainly to show, that no regular and consistent system of thinning has ever been thought of, much less attempted to be carried out; and that the different inclosures have been managed as suited the convenience and taste of the different parties in charge of them.

As to Mr. Clutton's opinion, that there cannot be found better oak-plantations in England, or woods of better growth, than these in Dean Forest, I beg to remark that, in this respect, my opinion differs widely from his. I do not indeed think that upon any estate in England will there be found so extensive oak-plantations as these in Dean Forest; but I can attest that I have myself seen, upon the estates of private proprietors, plantations of better growth at the same age; and this not only in England, but in Scotland. In the latter country, I could point out several estates upon which there are oak-plantations, at 35 years of age, with much finer trees, and a greater bulk of timber on the acre, than are to be found in Dean Forest, at the present age of the trees. This superiority in the case of the trees in Scotland, cannot be said to arise from soil and climate, for these are far less suited to the healthy development of the oak than are those of England. It is to be attributed entirely to superior management; and it seems to me a fair inference from this that, had the plantations of the Forest of Dean been hitherto under similar management to that which has been so conducive to the growth of timber in Scotland, they would, considering their advantages of soil and climate, have now been incalculably more valuable than they are. Mr. Clutton has tried to nullify the inference made in my Report, "that the inferiority in size of the trees in Dean Forest is entirely attributable to the defective system of management;" but as I have already shown that his statements, in this respect, are not based on the true facts of the case, it is unnecessary that I should advert much further to this subject. I may be allowed to remark, however, that as Mr. Clutton has endeavoured to make it appear that the plantations in Dean Forest are only of 30 years' growth, it must be kept in view that the only ground he has stated in support of this argument is, that in 1821 and in 1822 there were 2,000,000 oaks planted; a number of plants, as I have already shown, sufficient only to plant one-twelfth part of the inclosures. In short, suppose a like number of plants had been planted in each year from 1812 to 1822, the inclosures would have been no more than completely planted; thus at once pointing out that the original plantings in the inclosures must have succeeded to a very considerable extent, independent of after-mendings; for, had this not taken place, there would not have been half a crop at the present time. Besides this, I again beg further to remark, that although I must maintain that the crop in the Forest of Dean is, from defective management, inferior of its age, it cannot be said to be worse than that in the other Royal Forests which I have visited; for, in the New Forest, the average diameter of oak-trees, at 40 years of age, I found to be under eight inches; and, in Alice Holt Forest, it may be said to be also about eight inches; thus confirming my general inference, that all these forests have been hitherto under a defective system of management, the result being that the crop is inferior as compared with well-managed plantations in the north.

5thly. In referring to several portions of different inclosures which I recommended to be wholly cleared and re-planted, Mr. Clutton suggests that only the rubbish should be cleared away, and vacant spaces filled up. This plan of clearing away rubbish only, and making up in small patches, where a crop is generally defective and unhealthy, is not now adopted by the most intelligent managers of woods. The method of making a decided clearing has been recommended by me, because the crop on such parts is generally worthless; and, from experience, I have found this plan the most satisfactory in the end, as young trees planted in small patches among older ones never succeed profitably.

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In reference to the drainage which I have recommended, Mr. Clutton says: "Several of "the inclosures also require some draining, but the deputy-surveyor has doubted whether it "would be advisable to incur the expense, as the commoners' cattle would tread them in "almost as fast as made." This fear is almost entirely without foundation. I have frequently seen drains made in plantations grazed by cattle, and have never seen them much injured in consequence. If the drains are made with a good slope on the sides, as the dimensions I specified would secure, the treading of the cattle will have very little injurious effect upon them. As to the distances between the drains, if that be fixed much wider than is proposed in my Report, the drains would be comparatively inoperative; and, consequently, a useless expenditure would be incurred. I admit that "the greatest economy, consistent "with efficiency," is necessary for the profitable management of woodlands; but it would be a more than questionable economy in woodlands, as everywhere else, to incur the expense of drainage at all, unless on such principles and in such a way as should ensure its being effective.

6thly. Mr. Clutton appears to think that underwood is not injurious to the healthy development of oak-trees. Such an opinion stands in direct opposition to the discoveries of modern science, as applied to the growth and cultivation of plants, and is also at variance with the experience of the most intelligent practical men of these times. Having, in my Report, stated my views fully on this subject, it would be out of place to add any further remarks here.

7thly. It is stated by Mr. Clutton, that "if Mr. Brown's Report is carefully looked into, "it will be seen that, in detail, by far the larger portion of the plantations are spoken of as "healthy and improving, and likely to become fine timber."

In reference to this point, my Third Report ends with the following statement: "The "soil being generally of the very best description for the rearing of oak, if the crop in these "inclosures is attended to, and managed with the periodical regularity I have herein recommended, there is every probability of its becoming of vast ultimate value, independent of a "fair yearly rent being realized from the progressive thinnings; while, on the other hand, if "it is not attended to in the periodical and regular manner advised, it is more than likely that "it will not attain even half the value of timber that the land is capable of producing." Having made this statement, I may only remark that the larger portion of the crop in the plantations in Dean Forest, although it has hitherto been very much retarded in its growth by unskilful management, may, nevertheless, be said to be in a healthy state, and will yet, under future good management, become fine timber; but I must also remark, what indeed is clearly implied in my former Reports, that not one of the inclosures has upon it a crop which may be said to be excellent, or in every respect as good as the land is capable of producing at the age. In short, there is not one inclosure in this forest which has not upon it a crop much injured by mismanagement, and which might not have been much superior in value, had it been hitherto under such a system of management as I have recommended.

As to my Report on the Highmeadow Estate:—

Mr. Clutton commences his remarks, in respect to my Report on this property, by stating, "that the inclosures (1,013 acres) were planted in the years 1826 and 1827; and, with the "exception of a small portion of Knockall and Marian, have an exceedingly thriving and "regular crop. Mr. Brown cannot speak more highly of these than their state warrants; "they are not, however, better than many of the plantations in Dean Forest," &c.

Having, in a former part of this Report, referred to the satisfactory condition of the greater part of these inclosures, it is not necessary that I should again make any lengthened remarks on that subject; but, as Mr. Clutton states that "they are not, however, better than many "of the plantations in Dean Forest," I beg to advert a little to that statement. The age of the trees in these inclosures is admitted to be 27 years; and, at this age, we find them of an average diameter of 5½ inches; while those in the inclosures of Shutcastle, Edgehill, Kensley Ridge, and Salley Vallets, in the forest, although much older, and in every respect under better circumstances of soil and situation, average only 6 inches diameter. It seems quite evident from this, that the 811 acres of young plantations on the Highmeadow Estate have been under more skilful management than those in the inclosures of the Forest of Dean, and consequently they are much superior at their age.

Before dismissing this part of the subject, however, I shall take the most favourable view that the case will admit of, and compare the average diameter of the young crop in Highmeadow Woods with that of the crop in all the inclosures of the forest.

According to the usual rate of growth in oak-trees on moderately favourable soil and site, if they are, at 27 years of age, found to be 5½ inches diameter, at a given part, they will, under favourable management, be 12 inches diameter, at 40 years of age. This rate of growth I have no doubt will hold good in the case of the oaks referred to on the Highmeadow Estate; but, as regards those in the forest inclosures, their rate of growth has already fallen far short of this (they averaging only 8 inches, although of about 40 years' growth); and, unless they are in future subjected to management as good as that under which the young crop in Highmeadow Woods has been, their relative inferiority will still continue, and indeed almost certainly increase.

I now come to advert to Mr. Clutton's remarks on that part of my Report which refers to the 2,313 acres of old coppice-timber trees, generally matured. In the Report now under notice, I have said, that "the trees on this extent having been reared from coppice-shoots, "are not only inferior in point of size at their age, but, in my opinion, will never improve

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" to such a degree as to become valuable timber of large dimensions, nor even to such an " extent as to justify their being continued as a profitable crop on the land they occupy;" and that " I therefore recommend as the most profitable method to pursue regarding it, to " deal with it on the principle of cutting down, and replanting a portion each year succes- " sively, till the whole shall be cleared off, and the land gradually replanted in such a way " as shall afford reasonable hope of an ultimate, sufficient, and remunerative value being " realized from it," &c.

In referring to these recommendations, Mr. Clutton remarks: " This I consider would be " a great sacrifice." 2dly, " I entertain a very strong opinion that this would be injudi- " cious, inasmuch as there is nearly half a crop of thriving young stores, which it would take " 25 years to replace." 3dly, " The underwood is cut at periods varying from 15 years to " 18 years, depending on the rapidity of its growth. At each falling, such oak-stores as can " be found are saved; and, until recently, others have been planted for timber; consequently, " the oak-trees are of various ages, and, if judiciously managed, will supply a succession of " timber fit for naval and general purposes. Many of the trees (but not all) have, no doubt, " been saved on stools, and, although I should myself prefer a maiden-tree, I would store a " tree on a low stool with the certainty of obtaining very much fine and valuable timber."

As these quotations specially bear upon my reasons for recommending the clearing of the old timber-trees, I shall at once advert to them, before proceeding further.

With regard to the first, therefore, I have to remark that, were the system of clearing and replanting which I have recommended to be adopted in the future management of these woods, it would, instead of being a " sacrifice," be attended with the most satisfactory results. In proof of this, I may remark that, from the greater portion of the trees forming the crop in these woods having been raised from coppice-shoots, they are now generally found inferior and defective in their timber; hence, if they should be managed in the way suggested by Mr. Clutton, and only the defective trees taken out, the result must be, that nothing but defective trees will ever be taken from them, because they will gradually all become equally defective, as they become matured in their timber. Had Mr. Clutton been requested to state the best mode of management for these woods, with a view to produce a regular supply of defective timber, he could not have advised a better plan than that which he proposes; namely, " that upon every periodical falling of the underwood, such trees as have arrived at maturity, " and such as are not growing, should be felled." Now, in order to obviate this, and to make the present crop as valuable as possible to the Crown, I have recommended that the whole should be gradually cleared, and the land replanted in such a way as shall afford reasonable hope of an ultimate, sufficient, and remunerative value being realized from it.

Again, 2dly, Mr. Clutton objects to the clearing of the crop, on the score that there would be destroyed a great many thriving young trees, which it would take 25 years to replace. As to these young trees, I beg to remark, that they are generally of so weakly and drawn-up a character, from excessive confinement among the tall underwood, and from being crushed down by taller old trees surrounding them, that it is not possible they could ever attain the size of valuable timber.

3dly, Mr. Clutton next recommends that the periodical cutting of the underwood and saving of young trees, should be continued in these woods, as has hitherto been done. This plan has nothing to recommend it, but its being the old English fashion; and I may only remark, on this point, that it is impossible to rear valuable timber for " naval purposes" under such circumstances of management, as is evident from the present condition of the crop I am now speaking of in Highmeadow Woods. Mr. Clutton recommends that this old and unprofitable system should be adhered to; but every intelligent cultivator of trees, who has studied the art on the principles of vegetable physiology, will at once condemn, as unsound, the recommendations he has given in respect to these woods; for it is well known, even from common experience, that young trees cannot prosper in the immediate neighbourhood of older ones.

Mr. Clutton goes on to state, respecting the quantity of land which I propose should be cleared and replanted each year, that " if this suggestion is carried out, I am of opinion that " very serious injury will be inflicted on the heir to the Crown." This appears to me an extremely short-sighted view of the case under consideration; for what proprietor of land would not wish to have upon his estate 2,313 acres of valuable and promising young oak-plantations, in preference to the same extent under a dense mass of unprofitable underwood, with defective and decaying trees. On the supposition that the whole of the extent named, were to be cleared and replanted in a period of 23 years, the heir to the Crown would then be in possession of a property which would afford undoubted hope of great value being derived from it; while, on the other hand, if this property is dealt with in the way recommended by Mr. Clutton, at the end of the period referred to, it cannot fail to be in even a more hopeless state than it is now.

In reference to the Highmeadow Woods, I have still to advert to Mr. Clutton's remarks regarding the 203 acres of land and crop described as of an extremely inferior character, and relative to which I recommend that it should be cleared, and replanted with larch alone. Mr. Clutton, in referring to this portion of these woods, says, " I have to observe that " this portion of the plantations is extremely poor land; and although, for the most part, " planted in all respects similarly to the other portions, it is clear that the soil will never " produce a crop of timber, and I am of opinion that the less that is expended upon it the " better;" and that " the most prudent plan, in my judgment, is from time to time to plant " such portions of the land as may become bare, but to leave the present crop to make such " progress as the nature and quality of the land will admit."

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From these statements, it is to be inferred that Mr. Clutton is decidedly against the adoption of any improved method of making this poor land productive of more return to the Crown than it now presents. The land referred to is in many places damp, besides being poor; hence, the cause of the unsoundness of the larch that were cut on it: still, he does not appear to think that drainage is necessary, with a view to improve both the land and its crop. Nothing, so far as I can see, can be drawn from Mr. Clutton's remarks in respect to the portion of the Highmeadow Woods now under notice, but that he recommends generally to allow it to remain in its present unprofitable state, and to plant from time to time such portions as may become bare; bare from what cause it is not stated. He says, the larch-plants make little progress, and were found unsound. I presume he means that, although these should die from time to time and leave the land bare, the expense of planting others, in their turn, to share the same fate, should still be incurred; and yet he says, "the less that "is expended upon it the better." Such a policy, as may be inferred from these recommendations of Mr. Clutton's, would be the worst possible for the interests of the Crown. The 203 acres of land referred to is poor, no doubt, as is also the crop now on it; but, if this unthrifty crop were cleared off, the land properly dried where wet, and judiciously replanted, as recommended in my Report, there can be no doubt that it would ultimately be productive of a valuable return; while, were it dealt with in the way recommended by Mr. Clutton, it would, of course, remain not only an unproductive part of the Crown lands, but would also remain to be pointed out as discreditable to their managers.

My Fifth Report has reference to the single trees which have been planted on several parts of the open forest, and to inferior trees which had been left among the young ones in the newest inclosures. With regard to the former class of trees, Mr. Clutton remarks:

"It appears that the first attempt was made around the Speech-house, nearly 50 years "ago; and with what success may be judged of from the fact of their being so much larger "and more likely to make fine timber than those left in the inclosure (Acorn Patch) from "which they were taken. Many of these trees have 20 feet and more of timber at this "time (which is an extraordinary growth); whereas, in the plantation from which they were "taken, the trees were not of equal size." With respect to this statement, I have to remark, that the single trees referred to, as growing around the Speech-house, form a distinct exception to the general character of the class of trees now under notice. The Speech-house Farm forms a clearing of about 12 acres, situated in the bosom of a well-timbered part of the forest; and, in consequence of its being thus surrounded by some of the finest old timber-trees in the forest, it is well sheltered from all points of the wind. The trees referred to by Mr. Clutton, are growing around the inner edge of the clearing, and are situated between the tall old trees and the cultivated farm; hence, their situation is one of the most favourable possible for the rapid growth of trees, and they could not fail to grow under such advantageous circumstances. As to their being "more likely to make fine timber than those left in the "inclosure from which they were taken," there can be no doubt that this is the case, and it is at once accounted for by the fact, that the trees in Acorn Patch, the inclosure from which they were taken, have hitherto remained in a generally crowded state, a position eminently unfavourable to their healthy development; while those which were taken from among them at an early period, and replanted around the Speech-house, have had ample room afforded them, and at the same time have been most favourably situated from the shelter of the old trees surrounding them.

From Mr. Clutton's remarks, it is to be understood that he is under the impression that I recommend that the trees around the Speech-house, just adverted to, should be cut down. In this, he is under a mistake; for I could never have recommended so foolish a step, nor have I even adverted to it in my Report. If my Report had been carefully read, he would have seen that my observations, in respect to the clearing of the single trees, are confined entirely to those growing at and near Moseley Green, to those on the southern entrance of the forest from Lydney and Bream, and to those on the line of the Severn and Wye Railway, from Parkend to Cannop Bridge, and on towards Lydbrook. These were the portions of the forest which I examined with a view to reporting as to the condition of the single trees growing on them, and on these portions these trees are very inferior, and will never become valuable. I again, therefore, recommend that they should be cleared off, and the ground properly inclosed and replanted. Were the trees, on the portions referred to, cut down, and the land properly replanted with a crop of young oaks, with larch as nurses, it cannot be doubted that, in 50 years hence, such a crop would be incalculably more valuable and promising than the single trees, at present existing there, could be at the end of the same period.

In further referring to these single trees, Mr. Clutton says, "Of these 600 acres, the "portion of the young trees planted on the more exposed situations have not made progress, "but by far the larger part of these young trees are as flourishing, and will make as fine "timber, as any in the forest. This is placed beyond doubt by the single trees now standing "near the Speech-house."

Mr. Clutton here admits that "the young trees planted on the more exposed situations "have not made progress;" but he has not distinctly pointed out the situations he means; and, in stating that "by far the larger part of these young trees are as flourishing, and will make as "fine timber as any in the forest," he does not indicate any particular example, but refers to those around the Speech-house only, which I have already shown are in peculiarly favourable circumstances, as compared with the single trees on the other parts of the forest, and therefore do not come under the class now under notice, and were not even adverted to in my Report. In it I state, that, although the single trees have been planted on the better portions of the open forest-land, they have failed to succeed healthily, because no nurses have been

been planted among them. Mr. Clutton, in referring to this statement, says, "It did not appa- "rently occur to Mr. Brown that these young trees could not have been planted with nurses, "as the Commissioners of Woods had no power to inclose the land on which they were "grown." I was perfectly aware of the fact of the Commissioners having no power "to "inclose the land on which they were grown;" and I did not make the statement in ignorance of it, but simply with the view of pointing out the cause of the inferiority of the single trees, and to show that oaks will not succeed healthily when planted on the open forest, without nurses, as these have been.

Under this head, Mr. Clutton further goes on to say, in reference to the age of these trees, "The planting took place between 1831 and 1835, when 175,000 were planted on 600 acres, "being from 18 to 22 years only, except a few which were planted between 1827 and 1831."

From this statement, it would appear that the average age of the single trees in question, is about 20 years only; while, from their branchy, bark-bound, and gnarled appearance, I considered them from 25 to 35 years old. This fact is a convincing proof that they are even more unhealthy, and of a less promising character, than I had supposed from their appearance; for, it is well known to practical men, that when trees of 20 years of age assume the character and appearance of trees at 30 years, they are decidedly unhealthy, and becoming prematurely old. I am still the more convinced, therefore, that the sooner the trees on the parts referred to in my Report are cleared off, and the ground on which they stand replanted on right principles, the more profitable to the Crown will be the ultimate results.

I now come to refer to Mr. Clutton's remarks as to the inferior trees, which had been left among the young ones, in the newest inclosures. With regard to this subject, he says, "Mr. "Machen has wisely, I think, on the 2,000 acres of plantation made since 1842, wherever "any single oak-trees were found thriving and growing, left them; and, with the protection "afforded by the larch, they will make fine timber, and a saving of 20 years will be caused "thereby." From this extract, it is to be understood, that he thinks the deputy-surveyor has acted wisely in leaving the old and inferior trees among the young ones. If Mr. Clutton had ever observed the injurious effects of the shade of tall and branchy trees on the constitution of young ones growing around them, he certainly would have entertained a very different opinion. My experience leads me to a conclusion quite the opposite of that stated by Mr. Clutton. I am perfectly confident that the more uniform the crop of trees in any piece of plantation, the more likely is it to progress satisfactorily, and to become ultimately valuable; on this ground, therefore, I have recommended that the inferior trees, under notice, should be cleared off. In my Report on Dean Forest, I have stated my views on this subject at such length, that I consider it unnecessary to advert to it further.

Another point to be considered, in connexion with the new inclosures now under notice, is, the drainage of damp portions of these, to the extent of 1,200 acres. With reference to my recommendation on this point, Mr. Clutton says, "I examined these young "plantations, and found them well ditched; the ditches are deep and well made, and are, for "the most part, quite sufficient. I do not agree that it is necessary on a soil similar to the "Forest of Dean to make ditches at 45 feet; I believe it to be a waste of money;" and "if "the state of the crop is a criterion, I say that the past system has been good," &c.

From these remarks, it might be inferred that the method of drainage practised by our forefathers ought to be maintained in respect to the crop in Dean Forest, and that there are no advantages to be expected from the improved system of drainage, now generally adopted. The ditches, or drains, which are at present found in the new inclosures, have been made only in the wettest parts, and are put on without any attempt at regularity, or system. This is the method practised 50 years ago, and one which, it is well known, cannot dry the land sufficiently for maintaining the health of any crop. I have for many years past experienced the advantages of draining woodland upon the principle of system and regularity, as the operation is now applied to agricultural cropping; and, from my knowledge of the superior effects of regular and systematic drainage in drying land, as compared with the old mode of the operation, I recommended that these inclosures should be dried on that principle; and, although Mr. Clutton seems to think that the ditches are "quite sufficient," and that to make others at 45 feet apart, as I have suggested, would "be a waste of money," actual experience leads me to state quite the contrary, as my conclusion. I am aware that there are still many old farmers to be found, who maintain that the old system of partial drainage is sufficient, and who think that systematic drainage, as now practised by the most spirited improvers of the soil, is "a waste of money;" but we cannot, on this account, conclude that no advantage accrues from the adoption of the modern system of drainage, while we have such abundant evidence as to its advantages and fully remunerative results. In short, the land under the inclosures which have been made in Dean Forest since 1841, is damp to the extent of (as nearly as I could judge) 1,200 acres, a portion of which has been drained on the old partial system,—a system utterly ineffective for securing the health of the crop. The result of this natural dampness and ineffective drainage is, that the crop is not making satisfactory progress; and I have recommended, therefore, that all wet portions should be systematically and effectively drained; and this I think may be satisfactorily accomplished by drains of the depths, and at the distances, specified in my Report. In order to show that the land under notice is very damp in the subsoil, and consequently in need of drainage, I may remark, that the rough grasses, and many other plants which can grow on wet land alone, are found growing here in great luxuriance; thus proving that the past drainage has not been "quite sufficient."

As to the state of the crop being a criterion "that the past system has been good," I have only to say, that I have already, as it seems to me, clearly proved the past system to have been the opposite of good.

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The next subject falling to be considered, is Mr. Clutton's remarks on my Sixth Report, which has reference to the establishment. There is nothing of importance in these remarks; and I shall only notice very briefly one point to which he has adverted; namely, the establishment of woodmen. With reference to these, he states: "Mr. Brown does not appear to "be aware that there are at this time only 13 regular woodmen and 10 woodmen-labourers, "although you require him to report on the whole establishment, as it at present exists;" and "the men called woodmen labourers, although only doing the work of common labourers, "have an inducement held out to them by the use of a cottage and permanent employment, "to protect the property of the Crown, with the prospect of advancement. If this is "abruptly withdrawn, and these men are displaced by the introduction of Scotch woodmen, "I cannot but fear that the service may suffer." I was perfectly aware that there are only 13 regular woodmen and 10 woodmen-labourers; and, if Mr. Clutton had read my Sixth Report carefully, he would have seen that I have referred to this, and have stated, that "from "a statement with which I have been furnished from the Office of Woods and Forests, "showing the number of woodmen and labourers in charge of the inclosures in Dean "Forest, and also the acreage under the superintendence of each, it appears that there are "not fewer than 23 men thus employed." In my Report, I have not indeed said that there were 13 regular woodmen and 10 woodmen-labourers, because the fact is well known in the Office of Woods and Forests; and I, therefore, considered it sufficient to say, that there are 23 men employed as woodmen; which fact was a sufficient statement for my purpose in dealing with the subject of establishment.

Mr. Clutton appears to think well of the system of employing labourers to act as woodmen, and to take charge of inclosures, in the way which has hitherto been adopted in the forest. On this point, my experience leads me to differ widely from him; for I have almost invariably found that, when common labourers are put in charge of portions of plantations, with discretionary power to go about and examine their charge when it may seem proper or convenient to them, they gradually become careless, indolent, and unwilling to apply themselves to hard labour. The consequence is, that the system Mr. Clutton thinks so well of, instead of being an advantage, is, in point of fact, a great loss; and I have no hesitation in asserting, that much loss has, from this cause, been already sustained by the Crown. Of this, I was convinced while surveying the forest; and, for further proof of it, it is only necessary to refer to the very small clear annual returns which have been hitherto realized from these woodlands,—a result which has, in part, been occasioned by supporting a staff of mere lookers-on.

I do not know on what grounds Mr. Clutton founds the supposition he seems to entertain, that it is intended abruptly to withdraw the native woodmen of the forest, and introduce Scotch ones in their places. My Report can lead to no inference of this kind. So far as I have had cognizance of the subject, you were especially anxious that four new woodmen, skilled in the drying of bark otherwise than by laying it on the wet grass, and who were also accustomed to felling all trees before they were stripped, should be placed in the forest. With a view to introduce a spirit of improvement and emulation among the native woodmen, in this particular, four woodmen have accordingly been introduced from Scotland; and it would appear that Mr. Clutton infers, from this circumstance, that there is an intention of dismissing the native woodmen, and substituting Scotch ones for them.

In short, it is neither understood nor necessary that any effective man should be withdrawn from the forest; but, for the proper management of these woodlands, and with a decided view to profitable results being in future obtained from them, it is absolutely necessary that no man should be employed as a woodman in charge of inclosures, who is not well skilled in the modern system of forestry; and it is also necessary, for successful management, that each woodman should have an extent under him sufficient to employ his time and skill profitably. On this point, I have given my opinion fully in my Sixth Report. Instead of withdrawing the woodmen-labourers from the forest, it is only necessary that they should be employed merely as labourers, in which capacity they will, I am satisfied, be more profitable servants of the Crown than they have hitherto been. Every one at all acquainted with forest-affairs, will readily admit that 12 active and skilful men, who will lay heart and hand to duty, are more efficient in looking after, and protecting woodlands, than 23 of an inferior cast.

Having, in the foregoing pages, made all the necessary reference to Mr. Clutton's Report relative to mine on the Forest of Dean, I now come to advert to copy of a postscript, dated the 10th June, to Mr. Clutton's Report on Dean Forest, which you have transmitted to me, with your letter of instructions relative thereto, dated the 11th of June. This postscript to Mr. Clutton's Report has reference to a visit which it appears that gentleman recently made to the plantations on the estate of Arniston. As he speaks very slightingly in it of these plantations, which are, of course, under my immediate charge, I am sorry to think he should have visited them without ever having apprized either Mr. Dundas or myself of his object or his presence, because, had he done so, I might have been able personally to point out to him many circumstances in connexion with these plantations which might have altered his views in respect to their general condition. However, as Mr. Clutton did not give me the satisfaction of an interview; and, as I was not aware that he had visited the plantations here, till I received your letter transmitting his postscript, it only remains for me to take up the subject of that postscript as forming a part of his Report on mine on the Forest of Dean. Therefore,

Firstly, Mr. Clutton remarks, "The Arniston plantations consist, for the most part, of "Scotch and spruce firs, with a few larch, and some wych elm, ash, and beech." This statement is not correct; the greater body of the plantations, on the estate of Arniston, are

situated

situated on the least elevated parts in the neighbourhood of the home-grounds, and these consist of oak, ash, and elm chiefly, with a portion of beech, partially intermixed; while the lesser body is situated on the more elevated lands, and consists of Scotch and spruce firs, with a considerable portion of larch intermixed.

Mr. Clutton next remarks: "The hard woods are a good deal drawn up from over-"crowding, and in the whole of these extensive plantations I do not think that, except "in plantations made within the last 10 years, 10 acres of oak can be found."

A considerable portion of our older hard wood plantations are, I admit, a good deal drawn up, but this state was brought about before I came to the place in 1842. At that time, I found the plantations on Arniston estate had been, like those on many other properties in Britain, generally much neglected; but, since I came here, and took the management of the woodlands, they have been systematically thinned, and are now fast recovering from former neglect. Had, however, Mr. Clutton applied either to Mr. Dundas or to myself, before visiting these plantations, so as to secure proper guidance through them, he would have been spared the error of asserting that there are not 10 acres of oak to be found above 10 years of age. We have a considerable extent of very fine oak-plantations from 20 to 40 years of age, which are at least as good as any to be found in the Forest of Dean, at their respective ages.

Mr. Clutton further remarks: "The plantations at Arniston, as a whole, are of an inferior "character, and will bear no comparison with those in Dean Forest." From these remarks, it is plain, that Mr. Clutton has formed a very low opinion of the plantations under my charge. There are not, indeed, on the estate of Arniston, plantations equal in extent to those in Dean Forest; and, in this respect, they may, as Mr. Clutton says, bear no comparison with the latter; but, with respect to condition, we have much better plantations than are to be found in the forest; and, in order to prove this, I shall give a brief statement, showing the income which has been derived from some of these of nearly the same age as those in Dean Forest.

In drawing up the following statement, I shall exclude altogether sales of timber from old and matured woods, as these could not be taken as affording a fair comparison with sales of produce from the inclosures of Dean Forest; I shall also exclude produce from fir-plantations, as well as that from a large extent of young plantations which have been thinned for the first time only, and shall confine my statement entirely to produce taken from the periodical thinnings of 300 acres of hardwood plantations, of nearly the same average ages as those in the inclosures of Dean Forest; and, it seems to me, that nothing could bring more fairly into comparison the plantations on the estate of Arniston and those in the Forest of Dean than such a process. The statement is as follows:

Hard Wood Plantations made on the Estate of Arniston, between the Years 1800 and 1826.	Average Age of the Trees in these Plantations in 1851.	Gross Income from Thinnings, during a Period of Ten Years, from 1842 to 1851, both inclusive.	Gross Expenditure during the same Period.	Average Annual Income.	Average Annual Expenditure.	Average Annual Clear Income.	Average Annual Clear Rental of these Woodlands, per Acre, for a Period of Ten Years.
		£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
300 acres -	41 years -	9,039 12 11	3,128 - -	903 19 3	312 16 -	591 3 3	1 19 4½

Note.—The amount of Gross Income, stated in this Table, includes sales of wood manufactured at the saw-mill into barrel-staves, sleepers, roofing, stobs, gates, plank, waggon-frames, handles, &c. &c., as well as those of produce in the rough; and the amount of Gross Expenditure set down includes all expenses of felling the trees in the woods, lotting them for sale, cartage to the saw-mill, and conversion there; and it also includes all necessary repairs of roads, fences, &c.

The details of the above statement, being taken from the Arniston Estate books, its accuracy may be relied on; having given it, it would be superfluous in me to make any lengthened observations on it. I may, however, be allowed to remark that, if the profits, as set down in the foregoing statement, are compared with those from any 300 acres of the inclosures of Dean Forest for a period of ten years past, it will at once be ascertained whether the plantations on the estate of Arniston are "of an inferior character, and will bear no comparison with those in "Dean Forest." I may further remark, in reference to this statement, that land in the immediate neighbourhood, of somewhat similar quality, though superior both as regards soil and exposure to that occupied by these plantations, lets for agricultural purposes at 30 *s.* per acre; that the average receipts from produce are annually increasing as the trees taken out in the course of thinning are attaining larger dimensions; and that, as a natural result of the regular and systematic method of thinning and general management pursued, the crop, upon the whole land, is rising steadily and constantly in value. These results point out the advantages to be derived from the use of a sawing-power, and the adoption of the system of management which, in my Reports, I have recommended should be introduced into Dean Forest. If this system is introduced in due time, together with a sawing-power, there is no doubt that it will ultimately

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prove proportionately as beneficial in its results to the Crown Forests as it has already proved to the Arniston Plantations; but, if the advantages it holds out are neglected, I can hold out no hope of these forests ever becoming either profitable to the Crown, or creditable to their managers.

I have, &c.

The Right Honourable T. F. Kennedy. (signed) *James Brown.*

My Lords, Office of Woods, &c., 9 July, 1853.

I NOW beg leave to transmit, for your Lordships' information, copy of a Report which I have received from Mr. Brown, dated the 5th of July, and received in this office on the 7th, on the subject of Mr. Clutton's Report on the Reports of Mr. Brown, relating to the Forest of Dean and Highmeadow Woods, in conformity with the instructions conveyed to me by Mr. Wilson's letter of the 7th of June.

I have, &c.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury. (signed) *T. F. Kennedy.*

No. 22.

Sir, Bicknor, 1 February, 1854.

I HAVE, by the kindness of a friend, within the last few days, seen the Thirty-first Report of the Commissioners of Woods, Forests, &c., and, as I cannot but think the subject of Dean Forest and its management has been severely dealt with, I have made such remarks on the Report as I thought the circumstances called for, a copy of which I now inclose; and I would request that it may be communicated to the Lords Commissioners of Her Majesty's Treasury.

I am, &c.

The Right Honourable T. F. Kennedy. (signed) *Edward Machen.*

(No. 1.)

OBSERVATIONS on the Thirty-first Report of the Commissioners of Her Majesty's Woods, Forests, &c., 1853, as regards the Forest of Dean, by Mr. *Machen*, Deputy-Surveyor of that Forest.

1. THE Financial part:—

There is a statement of four years' accounts, thus; viz.

	£.	s.	d.
To 31 March, 1849, deficit - - - - - -	4,104	18	7
To 31 March, 1850, deficit - - - - - -	536	14	–
To 31 March, 1851, income - - - - - -	43	4	5
To 31 March, 1852, income - - - - - -	4,369	–	1

Now, I would remark that these figures, unaccompanied by any explanation, are calculated to convey an erroneous impression. In the first of those years, no timber was sold; bark was 3*l.* per ton, and 3,200*l.* was expended in planting. In the second, 2,680*l.* was expended in planting. In the third and fourth years, the planting had ceased. In the second and third years timber was felled for the Navy, and the expenses charged in those years; but the proceeds, viz. the sum of 3,852*l.* 17*s.* 10*d.*, received for this timber from the Admiralty, was brought into the fourth year's account. The large estimated income for the year ending 31st March 1853, proceeds wholly from cutting down the old timber.

The proceeds from this forest, when its extent is considered, are no doubt small; but, it should be remembered, that the advantage is gained in the increased value of the property, and not in present income.

This will continue as long as the forest is kept as a nursery for navy-timber, which is the purpose for which the persons having rights over it surrendered, or rather suspended, those rights. No doubt a more profitable application of the land, or rather a quicker return, might be obtained, if this object was given up.

Large sums are paid here for rates, schools, churches, charities, and roads (the latter being nearly 200 miles), and all charged to the forest; but, properly, the greatest part should be charged to the miners, as they employ three-fourths of the population.

The present value of the forest-plantations has been estimated at 40*l.* an acre, and the whole value at half a million, with reference to its future destination; and, it should be borne in mind, that this is a property created (as it were) within the last 45 years. When I came into office, it was practically in the hands of the commoners, and the encroachments extended into the very centre of the forest; it may be said to be recovered for the Crown (with what difficulty is not now remembered) by the inclosures that have since been made. These inclosures, having all been planted so recently, cannot yet yield any revenue proportioned to the

Dean Forest

the value of the property on its acreage, neither can there be any regular successive falls of timber, as in woods of older growth.

Mr. Brown's and Mr. Clutton's Reports.

2. The management of the Forest:

The censure cast upon this, is founded on Mr. Brown's Reports, which are so voluminous that I can only notice the leading points.

There are six Reports:

1st. As to sawing-power. I am unacquainted with its operation, but I do not think it will answer here, because another fall of timber, of equal extent with that of last year, will exhaust all the timber in the forest; and there can be none from the plantations for the next 40 years.

2d. On the practice of stripping the trees, before they are cut, and using stages for drying the bark.

On the first of these, I would observe, that the wood here, being sold for miners' timber and cordwood, the purchasers would be quite indifferent whether it was cut before or after it was stripped; a very trifling increase of bark, might possibly be obtained, but the greater expense of stripping, and the depreciation in the value of the sample, would overbalance any advantage that might be gained. The advantage of the mode adopted here is great, by reserving the heavy work for the winter. The woodcutters are a numerous body of men, and thus get employment all the year round.

The method of placing bark on stages, which I am aware is followed in some parts of the kingdom, may be equally good; but a fair trial was made here last year, and it failed, more bark having been spoilt than in any year that can be remembered.

Mr. Brown's statement, that the "timber-bark of 1852 was very well cured, in consequence "of its being placed on stages," is altogether a mistake, as it was all dried in the manner usually adopted here, stages not having been used until 1853.

3d. This Report is the most important as to the general management. As the observations on each inclosure apply more or less to the whole, I would remark that I do not agree with any one of Mr. Brown's recommendations, except that as to a very small proportion of the ground.

I would first observe, that the conclusion Mr. B. has come to, in respect to the trees being larger, if they had been under good management, is altogether fallacious. Mr. B. assumes that, because the inclosures are 40 years old, the trees are of that age; but the fact is that, for the first six or seven years, the planting entirely failed. One cause of this failure was an enormous increase of mice, that so completely destroyed the trees that the inclosures were replanted. The average age of the trees cannot fairly be said to be more than 33 years, (I see by a record I kept, that 2,000,000 trees were planted in 1820-21), and many much later; and, taking this into consideration, I think no plantations in England have grown faster. The premises, therefore, being wrong, the conclusion must be so, likewise.

I should also add, that the growth of the trees here has been checked by a blight that appeared first in 1830, and has continued more or less in every succeeding year; no doubt, not peculiar to this neighbourhood, but which, either from the large masses of wood together, or other local causes, has visited this forest with peculiar severity. I have gone more at length into this subject of the size of the trees indicating bad management, because it pervades and gives a colour to the whole Report.

It is recommended to thin a part of each inclosure every year, instead of thinning the whole of some. This would have the effect of keeping the inclosures always open, because trespass cannot be excluded when the produce is remaining in them, and, on the whole, would be a less convenient arrangement for purchasers.

The times of thinning recommended, are identical with ours. Five or six years has been the usual interval between each thinning; the inclosures of Edgehills and Kensley are the exceptions to the rule, and were only delayed on account of the large quantity of old timber felled; all the workmen being required for that service.

Cutting away all the underwood would, I think, be a great sacrifice of revenue, without any adequate increased growth in the standard trees.

My opinion of the comparative merits, or demerits, of many of the inclosures entirely differs from Mr. Brown's. The cutting down 200 acres of Nag's-head Hill inclosure, as he recommends, would, I think, be a great loss. The soil and exposure are just similar to Ruerdean Hill, which is pointed out as likely to produce large timber; the difference being, that in Nag's-head no nurses were planted at first; but there is no doubt, in time, they will produce good navy-timber.

The Sallow Vallets is said to have suffered from over-confinement. I would point the attention of any one conversant with oak-woods to the state of this inclosure; no part of it is in the least weak or drawn up, and 8,000*l.* worth of produce has been taken from it in the last 25 years.

From the whole forest, the total amount of thinnings in the same period is 135,000*l.*

4th. Report on Highmeadow Woods.

The trees are recommended to be cut down, and the land replanted.

I consider this would be a proceeding most injurious to the permanent interest of the Crown, although it may produce a present income; but even this would fall far short of Mr. Brown's calculation, in which I believe him to be mistaken at least to the extent of one half.

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The trees are generally in the most rapid state of improvement, only the worst having been taken out, for the purpose of thinning, ever since the Crown bought the property, leaving the best to stand.

I cannot admit that large and good timber never grows from old stools, although usually not so good as maiden-trees; but this wood ought not to be condemned on this account; for, upon an admeasurement of five acres in five several parts of the wood, there have been found 156 maiden-trees, and 98 growing from stools; and, in the two great divisions of the Wood, it has been estimated, that in Mailscot, one half are maiden-trees, and, in Hadnock Wood, two-thirds. I trust so fatal a step as the destruction of this wood will not be attempted.

5th. Report on single Trees, &c.

The single trees on Moseley Green are not a favourable specimen; and this may form part of a future inclosure. No nurses could have been planted with them in the open forest; but, in all other parts of the forest where single trees have been planted, *i. e.* on nine-tenths of the extent, although they may not make tall or very large timber, they will produce such as are useful for many navy-purposes. Many now contain 20 feet of timber; they are well established in the ground, and out of the way of further injury. The ground on which they stand is so intersected by roads, mines, or patches, that no inclosure of it could be made with advantage; no objection is made by the commoners, and every tree growing there is a clear gain to the Crown. The hollies and hawthorns left in the inclosures do not at present interfere with the growth of the young trees, and are useful as a shelter from frost and winds, to which these inclosures are exposed. If the land is required to be drained, in the same manner as land for growing corn, there may possibly be 1,200 acres that need such draining; but oak-trees thrive well (if not better) where there is some moisture, and the trees here show no symptoms of injury. The thinnings from part of these inclosures, only 11 years old, have produced 450 cords of miners' timber, and 1,100 cords of cordwood—a produce unprecedented in so short a time.

6th. Report on the Establishment and Estimate.

No doubt, an improvement may be made in the establishment. From the circumstance of the inclosures having all been made at one time (the ground being before waste), many of the woodmen first appointed are growing old and infirm at the same time; of course, by removing them and replacing them with younger men, an advantage will be gained; this can be done better by my successor than by me, who have grown old with them. I would, however, observe that these changes should be carried out gradually and discreetly, although the population are more orderly and civilized than in former times.

I consider Mr. Brown's estimate cannot possibly be realized. He proposes to strip 1,000 tons of bark in a year, and wood in proportion. I think that, on an average, if more than 600 tons of bark is taken, the thinning will be too rapid. Just at present, the regular course has been disturbed by the very large falls of timber; but this, taking several years together, will be found to be nearly correct. The expenditure, also, is just too low. No one, who is not accustomed to this forest, can form a correct judgment of this, there are so many circumstances in which it differs from private property. I mentioned the extent and expense of roads before; the fences also want more than usual repairs; for, in addition to the fact that they are all from age decaying, at the riots in 1831, 100 miles of fencing were thrown down by the rioters, who were made to put them up, and of course they were restored, but imperfectly. It is true, however, the wood is yearly becoming more valuable from its size and the advancing price, and no doubt, therefore, the next 25 years will be more productive than the last.

I have now gone through Mr. Brown's Reports.

Stacking the bark.—This measure need not have been resorted to, if my recommendation to accept the offers of 3 *l.* 15 *s.* per ton for the flittern bark, and 3 *l.* 10 *s.* for the timber bark had been agreed to (and this was the price individuals sold for); and thus a loss of 700 *l.* to the Crown would have been saved, as well as the injury done to the sale of the bark of the next season, by having the sale of the bark of 1852 in London in March 1853. The description of the bark "lying on the wet grass to be dried" cannot be taken as a fair representation of the usual mode of drying bark adopted in this and all the adjoining counties, and which has always been satisfactory to the purchasers, who are most interested in its being well done.

With respect to the charge of not having used every endeavour to carry out the Commissioner's new plans, I have to state, that I have always done my best to fulfil his wishes, and only failed in having the wood felled before it was stripped, because the workmen positively refused to undertake the work on those terms. It is difficult in any country, and at any time, to change the habits of a people, and to any one acquainted with the character of our forest-population, it may well be thought to be especially so; but the time also was most inappropriate, from the unusual pressure of work. I had recommended that the old timber should be felled at the rate of 1,000 loads a year, as most advantageous for the markets, the workmen, and the roads; but the Commissioner determined to cut 4,000 loads in one year; the consequence of which was, that the workmen were in a position to command their own terms, and there are between 3,000 and 4,000 loads of timber that is, or will be, rejected, lying unsold in the forest. I am also charged with not having made previous preparation for the stripping; but I really do not know how such could have been made. It appears that, where this mode is practised, the stripping is done by women; but nothing could be done

Dean Forest.

Mr. Brown's and Mr. Clutton's Reports.

done to instruct them until the bark-season came; and, if it is meant that workmen should have been brought from other countries, I think this would have been very questionable policy. After nearly 50 years' service under the Crown, during which it has been my pride and pleasure to witness the gradual improvement of this forest, I certainly was unprepared for such a sweeping condemnation of every part of its management. To me, who have done with office, it is of little importance, but it is a great hardship on Mr. Langham, who has for 26 years been entrusted with this service under me, and who has devoted himself with zeal, fidelity, and judgment to the work.

I have only to add that, as the censure all rests on the opinion of one person, who, however eminent as a nurseryman, or a writer, on planting, cannot have had much experience in the management of oak-woods for navy-timber, I trust that, in justice to the parties whose management is impugned, but more especially for the security of this valuable property, which may be endangered by rash experiments, (of which kind I consider the proposals to cut down the Highmeadow Woods, 200 acres of Nag's-head Hill inclosure, and all the single trees, to be) some practical and impartial persons may be appointed to make a careful examination of the whole subject; and this should be on the spot, as the appearance of the forest itself will be more convincing than any other evidence can be.

(signed) *Edward Machen.*

Bicknor, 1 February, 1854.

No. 23.

Sir, Office of Woods, &c., 3 February, 1854.

I HAVE to acknowledge the receipt of your letter of the 1st of February, acquainting me that, within the last few days, you had seen the 31st Report of the Commissioners of Woods, Forests, &c.; and, as you cannot but think that the subject of Dean Forest and its management has been severely dealt with, you have made such remarks on the Report as you thought the circumstances called for, a copy of which you inclose; and you request that it should be communicated to the Lords Commissioners of Her Majesty's Treasury.

In reply, I beg leave to say, that I have perused your observations; and, in my apprehension, they do not contain matter of great weight, and they advert to subjects which have been fully discussed in Reports by Mr. Brown and Mr. Clutton, and on which I have myself formed opinions different from yours,—formed while in the forest, and on subsequent consideration. At the same time, I have not any objection to your making any representation you please upon the Report which, in the performance of my duty, I have thought fit to lay before Parliament. If, therefore, your observations had been confined to a vindication of the past management of the forest, for which you are responsible, I should at once have complied with your desire, by transmitting a copy of your observations to the Lords Commissioners of Her Majesty's Treasury. But your observations go much further; they impugn my past management of the Forest, and what you presume to be my intended system of management, and they are calculated, so far as your opinion may have weight, to obstruct my proceedings, acting on my responsibility and in the exercise of my discretion. They are also eminently calculated to throw difficulties in the way of Mr. Brown, your successor in office; a course of proceeding, on your part, which I hold to be objectionable and unbecoming. You are responsible for the past, but are in no way responsible for the future; and I consider, therefore, that the becoming conduct, on your part, is not to interfere with the course of management which I may think fit to pursue, or to reflect indirectly upon those whom I may employ to execute my instructions. Under these circumstances, I must decline to comply with your request to submit your communication, from which I entirely dissent, for the consideration of the Lords Commissioners of the Treasury; and, at the same time, I cannot refrain from expressing my regret that you should have considered yourself justified in proposing that an inquiry should be instituted into the state of Dean Forest, on the especial ground that this valuable property is exposed, under my direction, to being "endangered by "rash experiments."

I am, &c.

E. Machen, Esq. (signed) *T. F. Kennedy.*

No. 24.

Sir, Bicknor, 15 February, 1854.

IN consequence of your letter of the 3d instant, declining to forward the observations I felt called upon to make on the 31st Report respecting Dean Forest to the Treasury, where my silence on the subject might operate to my prejudice, I consulted my friends, who recommended me to send them by a neighbouring Member of Parliament, which I have now done, and think it right to inform you that I have done so.

I am, &c.

The Right Honourable T. F. Kennedy. (signed) *Edward Machen.*

Dean Forest.

Mr. Brown's and Mr. Clutton's Reports.

No. 25.

Sir, Treasury Chambers, 23 February, 1854.

I AM commanded by the Lords Commissioners of Her Majesty's Treasury to transmit herewith the accompanying paper from Mr. Machen, containing his observations on the 31st Report of the Commissioners of Her Majesty's Woods and Forests, &c., 1853, as regards the Forest of Dean, together with a copy of a letter from that gentleman to you, and of your reply thereto; and I am to state that as these papers have been communicated to this Board by a Member of Parliament, their Lordships feel it to be their duty to take cognizance of the same; but, before entering into consideration of Mr. Machen's representation, they wish to afford you the opportunity of making any observations which you may wish to offer thereon.

I remain, &c.

The Right Honourable T. F. Kennedy. (signed) *James Wilson.*

No. 26.

My Lords, Office of Woods, &c., 27 February, 1854.

I BEG leave to acknowledge the receipt of Mr. Wilson's letter of the 23d of February, transmitting to me an accompanying paper from Mr. Machen, containing his observations on the 31st Report of the Commissioners of Her Majesty's Woods and Forests as regards the Forest of Dean, together with a copy of a letter from that gentleman to me, and of my reply thereto, and stating that as these papers have been communicated to your Lordships by a Member of Parliament, your Lordships feel it to be your duty to take cognizance of the same; but, before entering into consideration of Mr. Machen's representation, you wish to afford me an opportunity of making any observations which I may wish to offer thereon.

In reply, I beg leave to express to your Lordships my thanks for the opportunity afforded to me, and to say that I have no wish to make any observations upon Mr. Machen's paper; but, if your Lordships should at any time desire to have any explanation upon any particular point, I shall be happy to afford it to the best of my ability. If I were to take another course, and enter upon a discussion of all the topics and views more or less adverted to in Mr. Machen's paper, I should involve your Lordships and myself in a discussion of a vast and indefinite magnitude, comprehending the whole detail of the past, present, and future management of Dean Forest and Highmeadow Woods. These matters are far more ably treated in Mr. Brown's and Mr. Clutton's Reports than I could now treat them in any statement which I could make, and I do not think that any such statement would add clearness to the documents which already exist for consideration, and which are in your Lordships' possession. I consider Mr. Machen's paper to be full of fallacies, and that, to remove them, would entail a very long, and elaborate, and very unprofitable discussion.

When I declined to forward Mr. Machen's paper to your Lordships, I stated to him that I should have had no objection to do so, provided his paper had been restricted to a criticism of my Report; but it contained his general views on the subject of the forest, at variance with my own; and it did not seem to me to be a becoming proceeding that an officer under me, and retiring from his office, should call upon me to be the channel of communication to your Lordships of statements and views eminently calculated to obstruct and embarrass the exercise of my authority in the administration of the forest, and to throw difficulties in the way of his successor in office. On these grounds, I declined to be the channel of submitting this paper to your Lordships, but I can have no objection whatever to their having been brought before your Lordships; and Mr. Machen, with great propriety, addressed a letter to me, acquainting me that he had taken steps to effect that object.

The papers transmitted are herewith returned.

I have, &c.

(signed) *T. F. Kennedy.*

The Right Honourable the Lords Commissioners of Her Majesty's Treasury.

DEAN FOREST.

SAWING-POWER.

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	1854:			
37	19 Jan.	To Clayton & Co.	To proceed with Sawing-Machinery, and erect the same early in March	100
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Dean Forest.

Sawing-Power.

No. 1.

Sir, Office of Woods, &c., 28 January, 1853.

I HAVE to acquaint you that the Lords Commissioners of Her Majesty's Treasury have been pleased to signify to me their assent to the principle of a proposal which I made to their Lordships, for the establishing, in the Forest of Dean and Highmeadow Woods, a portable steam-engine with circular-saw, in conformity with the details set forth in your Report to me, dated 18th September, leaving the details of the arrangements for future consideration.

I annex for your information a copy of their Lordships' letter on this subject, as it adverts to one or two collateral points.

You are aware that, when in Edinburgh, in October, I instructed you to advertise for tenders according to your specifications, not in the name of the Commissioners of Woods, but in your own name; and I have now to request that you will forward to me a copy of some one of the newspapers in which the advertisement appeared; also the tenders which you may have received, together with a report of your opinion on the several tenders, and whether you think that any one of them ought to be accepted; and if so, the reason for which you may recommend the preference. If, on the other hand, you should think, now that the Lords Commissioners of Her Majesty's Treasury have approved of the principle of the arrangement, that fresh tenders ought to be called for, you will report to that effect, together with the reasons for your opinion. Subject to these observations, I am desirous that the arrangement should be proceeded in with all convenient despatch, so that the machinery may be fairly established before it can be desirable to bring to sale any of the timber which will be felled during the coming season.

On receiving your Report, further instructions will be communicated to you, with a view to proceeding further on this subject.

I am, &c.

Mr. James Brown. (signed) *T. F. Kennedy.*

No. 2.

Sir, Arniston, 25 February, 1853.

I HAVE had the honour to receive your instructions of the 28th ultimo, acquainting me that the Lords Commissioners of Her Majesty's Treasury have been pleased to signify to you their assent to the principle of a proposal which you made to their Lordships, for the establishing, in the Forest of Dean and Highmeadow Woods, a portable steam-engine, with circular-saw, in conformity with the details set forth in my Report to you, dated the 18th September last; also a copy of their Lordships' letter on this subject; with a requisition that I should forward to you a copy of some one of the newspapers in which appeared the advertisement I lately made, in respect to receiving tenders for the erection of a portable saw-mill and steam-engine, and the tenders which I may have received, together with a report as to my opinion on the several tenders.

In reference to these I have to report, that agreeable to the instructions I had the honour to receive from you in Edinburgh, in October last, I advertised in my own name for tenders, according to my specifications, in the "Scotsman," the "Glasgow Herald," the "Liverpool Courier," the "Times," the "Gardener's Chronicle," the "Builder," the "Manchester Guardian," and "Newcastle Courant" newspapers, one of which I herewith send, namely, the "Liverpool Courier." After the appearance of the advertisement in these newspapers, I had application for plans and specifications for the proposed portable shed, saw-mill, and steam-engine from twelve parties, namely:

Messrs. J. & W. J. Smith, St. Lawrence Ironworks, Newcastle-on-Tyne.
Mr. W. Batley, Bridge-street Works, Northampton.
Messrs. Worsam & Co., King's-road, London.
Mr. James B. Maxton, Duke-street, Adelphi, London.
Messrs. Coley & Co., West London Ironworks, London.
Mr. W. K. Whitehead, Cornhill, London.
Messrs. Medwin & Hall, Blackfriars-road, London.
Messrs. J. Gilbert & Co., Boston-street, Hackney-road, London.
Mr. John Duff, Oak Bank Engine Works, Glasgow.
Mr. W. C. Burgess, Catherine-street, Limerick.
Messrs. T. & H. J. Morton, Albion-street, Leeds.
Messrs. Ransoms & Sims, Ipswich.

To each of these parties, I sent a copy of my plan and specifications for the proposed portable shed, saw-mill, and steam-engine, but received tenders from Mr. John Duff, Messrs. Ransons & Sims, and Messrs. Coley & Co., only; which tenders, I think, I left in the Office of Woods and Forests, when I had the honour of an interview with you there, on the 17th November last, in respect to the visit I was then about to make to the New Forest.

In giving my opinion as to the tenders of the three above-named parties, I have to state first, that, knowing that Mr. John Duff, of Glasgow, would not be willing to bind himself to keep

keep in perfect repair and working order the engine and whole of the sawing-machinery for one year after it was erected in the forest (a point essentially necessary to be enforced on any party who may undertake the work), I decidedly object to his tender being accepted. Secondly, I also think that the tender given by Messrs. Ransoms & Sims, of Ipswich, ought not to be accepted, because it fixes, in my opinion, much above a fair price for the articles to be produced; and, thirdly, although the tender given by Messrs. Coley & Co., of London, may, in my opinion, be considered a fair one for the articles to be produced, yet, from the circumstance of there having been too few tenders produced to admit of a due selection, I would recommend that theirs also should not, in the meantime, be accepted.

From not having kept copies of the tenders referred to, I do not at present remark the exact sum of each; but as they are, I believe, lying in the Office of Woods and Forests, reference can be made to them there.

It appeared to me remarkable that, although 12 parties made application for, and were supplied with, plans and specifications of the proposed portable shed, saw-mill, and engine, no more than three tenders should be produced; having, however, made inquiry at an eminent engineer in Edinburgh as to this circumstance, I was informed that no engineer of high standing is in the habit of contracting for any work but machinery alone; and that if an advertisement had been issued for the erection of the portable engine and sawing-machinery, separate from the portable shed, we would have been more successful in procuring tenders. I would, therefore, now that the Lords Commissioners of Her Majesty's Treasury have approved of the principle of this arrangement, recommend that fresh tenders be called for in the manner thus suggested, namely, for the portable engine and sawing-machinery, separate from the portable shed.

I have no doubt that, if prompt measures are used, the shed, engine, and sawing-machinery may all be produced and established in the forest, before it can be desirable to bring to sale any of the timber which will be felled during the coming season.

I have, &c.

The Right Honourable T. F. Kennedy. (signed) *James Brown.*

No. 3.

Sir, Office of Woods, &c., 28 February, 1853.

I HAVE to acknowledge the receipt of your Report, dated 25th of February, in reply to my instructions of the 28th of January, on the subject of the introduction of a portable saw-mill into the Forest of Dean, and recommending that a fresh advertisement for tenders should be made, dividing the tender for the machinery from the tender for the portable house.

I have to request that you will forthwith proceed to act in conformity with your recommendation, and draw up and issue an advertisement, stating that it is issued by my order, and that the machinery and house are wanted for the Forest of Dean, in the county of Gloucester, and desiring that the tenders shall be addressed to me in Whitehall-place; and, so soon as I receive them, I shall transmit them to you for your examination and report. It will probably be unnecessary to advertise in as great a number of papers as on the recent occasion; but you will judge of those which are most likely to be circulated among competent contracting parties; and I of course mean that the tenders shall be for the purchase of the machinery and house, not, as at one time proposed, for an annual contract.

I am desirous that on this service there should be all reasonable dispatch, in the hope that, within six months from this time, the machinery may be in actual action in the forest.

I am, &c.

Mr. James Brown. (signed) *T. F. Kennedy.*

No. 4.

Sir, Office of Woods, &c., 10 March, 1853.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests to acquaint you, that the Commissioner has this day received copy of an advertisement in a Liverpool paper, for tenders for a saw-mill and house in Dean Forest, in which it is stated that specifications will be furnished on application at this office. The Commissioner is not aware that he has the means of furnishing such specifications, and therefore requests that you will immediately transmit one copy of such specification as you consider proper to be furnished, one for the machinery, and another for the house, on the receipt of which, copies will be made in this office, and furnished to the parties who may apply for the same; but it is indispensable that the Commissioner should receive from you the precise specifications which you may consider necessary.

I am, &c.

Mr. J. Brown. (signed) *G. S. Bedford.*

Dean Forest.

Sawing-Power.

No. 5.

MEMORANDUM.

THE substance of the specifications for erecting a portable engine and saw-mill will be found in Mr. Brown's First Report on Dean Forest, dated 18th September 1852, and published in the Appendix to the 31st Annual Report of the Commissioners of Woods, &c.

No. 6.

Sir, Office of Woods, &c., 11 April, 1853.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests to transmit tenders, as per Schedule annexed, for supplying the sawing-power-machinery and portable shed for the use of Dean Forest; and I have to request that you will give them your best attention, and report, as soon as may be, your opinion as to which tenders you consider it most advisable to accept, taking into consideration the service required to be performed.

I am, &c.

Mr. James Brown. (signed) *G. S. Bedford.*

No. 7.

Sir, Arniston, 18 April, 1853.

I HAVE had the honour to receive your letter of the 11th instant, transmitting 20 tenders for supplying the sawing-power and portable shed for the use of Dean Forest; and requesting that I should give them my best attention, and report my opinion as to which tender I consider it most advisable to accept, taking into consideration the service required to be performed.

After giving these documents matured consideration, my opinion regarding them is as follows: it appears that the tender given by E. R. Turner & Co. is the lowest which has been received, they offering to supply the portable house and portable engine, with all machinery and other furniture, as specified, for the sum of 840 *l.* I consider, however, that this is too low a sum to enable any party to perform satisfactorily the service required; with the view, therefore, of having the service in question efficiently executed, I have to recommend that, although E. R. Turner & Co.'s tender is the lowest, it should not be accepted.

Keeping out of view altogether the tenders given by several others of the parties, which are fixed at much too high a rate, and would, consequently, involve a great amount of unnecessary expenditure, I am decidedly of opinion that the one given by Messrs. Clayton, Shuttleworth & Co. should be accepted. They offer to supply the portable house and portable engine, with all machinery and other furniture, for the sum of 1,000 *l.*, which is, in my opinion, a fair price, and sufficient to ensure the proper performance of the service in question.

Messrs. Clayton, Shuttleworth & Co., are a firm of the highest standing as practical engineers, and I have every reason to believe that, if you accept of their tender, they will furnish you with a first-rate sawing-power and portable shed for the forest.

I beg further to remark that, before entering into a distinct contract with any party for the performance of the service now under notice, it will be absolutely necessary to have a form of agreement drawn out, setting forth, in minute and exact detail, every condition necessary to be attended to in the execution of the work.

I have, &c.

The Right Honourable T. F. Kennedy. (signed) *James Brown.*

No. 8.

My Lords, Office of Woods, &c., 20 April, 1853.

I BEG leave to refer to the letter addressed to me by your Lordships' command, on the 26th of January, acquainting me that your Lordships were pleased to sanction the principle of establishing, in the Forest of Dean and Highmeadow Woods, a portable steam-engine and sawing-power, leaving the details of the arrangements for future consideration, and to my letter, in reply, of the 28th of January; and I have now to acquaint your Lordships, that I made a communication to Mr. Brown, of the same date, copy of which is annexed. In reply, I received a report from Mr. Brown, dated the 25th of February, a copy of which is also annexed, recommending that fresh tenders should be called for.

Accordingly, some time being required to adjust the details, the plan and fresh specifications were finally adjusted, and an advertisement, calling for tenders, inserted in various newspapers most likely to attract the attention of engineers. The plan and specifications are transmitted, in original, for your Lordships' inspection, and are requested to be returned.

At

Dean Forest.
Sawing-Power.

At the time limited for the reception of tenders, 21 were received, and I transmitted them to Mr. Brown for his consideration and report; and I have now the honour to enclose, for your Lordships' information, a copy of a Report by Mr. Brown, dated the 18th of April, in which your Lordships will perceive that he gives reasons for disapproving of certain of the tenders, and gives his opinion that the tender made by Messrs. Clayton, Shuttleworth & Co. should be accepted.

I transmit the 21 tenders for your Lordships' inspection, and have to request that I may be favoured with your Lordships' instructions, in order to proceeding to effect a contract, as I consider it important that no time should be lost, so as to have the saw-mill in action in the forest in the early part of the autumn, so that it may be applied to the timber which will be sold to the public; that is, the timber which may not be found suitable for the service of the Royal Navy, of which there will be a large quantity.

I have, &c.

The Right Honourable
The Lords Commissioners of Her Majesty's Treasury.

(signed) *T. F. Kennedy.*

No. 9.

My dear Sir,

Office of Woods, &c., 28 April, 1853.

On the 20th of April, I sent in the various tenders for the sawing-machinery in Dean Forest, 24 in number, and I am anxious to be authorized to make a contract with one of the parties, who will be surprised if I make no communication to any of them, after calling for tenders; and, as the quantity of timber on hand is and will be large, I am desirous to have the advantage of the sawing-machinery as soon as it can be constructed. I am desirous, therefore, to have authority to proceed as soon as possible, and a very short letter only from the Treasury seems to be necessary.

Yours, &c.

J. Wilson, Esq., M. P.

(signed) *T. F. Kennedy.*

No. 10.

Sir,

Office of Woods, &c., 5 May, 1853.

As I shall be immediately authorized by the Lords Commissioners of Her Majesty's Treasury to accept some one or other of the tenders made for the sawing-machinery and house in Dean Forest, and on which you have reported, I think it desirable that you should come to London on an early day, say the 10th of this month, in order to make the necessary arrangements to carry into effect such contract; and I think it would be necessary that you should hold personal intercourse with such contractor as the Treasury may select, in order to make certain that every particular is understood previous to a written contract being entered into. I have, therefore, to request that you will come to London on Tuesday, the 10th of May, if at all consistent with your convenience.

I have to mention to you that some other views occur to me, which may be advantageously carried into effect on your return to Scotland; but I will further consider them, and make them known to you, during the time you are in town.

I am, &c.

Mr. James Brown.

(signed) *T. F. Kennedy.*

No. 11.

Sir,

Treasury Chambers, 5 May, 1853.

I am commanded by the Lords Commissioners of Her Majesty's Treasury to acquaint you, with reference to your letters of the 20th and 28th ultimo, that my Lords are pleased to authorize you to accept the tender of Messrs. C. R. Turner & Co. for a portable house, 250 *l.*, and sawing-machinery, 590 *l.*, in the Forest of Dean; and they request that you will place Mr. Brown in communication with the parties, in order that the necessary steps may be taken for the completion of the contract.

£. 250.
£. 590.

I remain, &c.

The Right Honourable T. F. Kennedy.

(signed) *James Wilson.*

No. 12.

Sir,

Treasury Chambers, 16 May, 1853.

With further reference to your letter of the 28th ultimo, I am commanded by the Lords Commissioners of Her Majesty's Treasury to acquaint you that Messrs. Turner of Ipswich, in their first tender for supplying sawing-machinery in the Forest of Dean for 840 *l.*, having omitted to include the charge for delivering and erecting the same, which raises their second tender to 997 *l.*, my Lords are pleased to desire that the tender of Messrs. Clayton, Shuttleworth & Co., who engage to supply the machinery in question for 1,000 *l.*, may be accepted, these parties being more experienced in saw-mill engineering.

I remain, &c.

The Right Honourable T. F. Kennedy.

(signed) *James Wilson.*

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No. 13.

Office of Woods, &c., 18 May, 1853.

Gentlemen,

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests, to acknowledge the receipt of your letter of the 8th of April, making a tender for supplying the portable house and sawing-machinery required for the use of Dean Forest, at the price of 1,000 *l.*, and to acquaint you that the Commissioner accepts your tender, and has given instructions to the solicitor of this department to draw out a form of contract for the due execution of the work, to be signed by the Commissioner and by you; and I am to request that you will forthwith proceed to carry out the work, according to the amended specifications herewith transmitted, in order that the machinery may be erected and in working order in the Forest of Dean on the 14th September next.

I am, &c.

Messrs. Clayton, Shuttleworth & Co.

(signed) *G. S. Bedford.*

No. 14.

Office of Woods, &c., 18 May, 1853.

Sir,

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests, to transmit herewith a plan and specifications of the portable house and sawing-machinery about to be constructed for the use of Dean Forest, together with the tender of Messrs. Clayton, Shuttleworth & Co. for the due performance of the work, for the sum of 1,000 *l.*; and I am to request that you will draw up and submit, for the Commissioner's approval, a draft form of contract, to be executed by him and Messrs. Clayton & Co., in order to secure the certain completion of the work not later than the 14th day of September next; that is, that the machinery shall be erected and in working order in the Forest of Dean on that day.

I am, &c.

John Gardiner, Esq.

(signed) *G. S. Bedford.*

No. 15.

7, New Road, Fitzroy-square, London,
30 July, 1853.

Sir,

I AM pleased to inform you the works in connexion with the portable saw-mill, and portable steam-engine, are progressing very satisfactorily; the idea of such machinery, in my opinion, is first-rate, and I have not a doubt eventually it must become general, as being able to remove the agent to the work is, in many cases, productive of great economy. More especially in this instance, so pleased am I with the idea, that I have ordered our people to put one in hand immediately for our own use, which I am convinced we shall find answer our purpose well. I may also further add, that I have not a doubt of its answering well in the Forest of Dean, if properly managed, and also that it will be a credit to all concerned in carrying it out.

I am, &c.

(signed) *J. Shuttleworth,*
pro Clayton, Self, & Co.

The Right Honourable T. F. Kennedy.

No. 16.

Dalquharran Castle, County of Ayr,
8 September, 1853.

My Lords,

I BEG leave to annex, for your Lordships' information, a copy of a letter which has been addressed to me by Mr. Shuttleworth, of the house of Clayton, Shuttleworth & Co., with whom I was authorized by your Lordships to contract for the sawing-machinery, &c., to be established in Dean Forest and Highmeadow Woods, and who, I am happy to say, from information subsequently obtained, are probably the best parties in the kingdom with whom a contract could have been made for this purpose.

It is highly satisfactory to find, from the opinion of these gentlemen, that the plan of the machinery is so highly approved by them, that they have ordered similar machinery for their own use, the contract price, in my case, being 1,000 *l.*

I have thought it would be satisfactory to your Lordships to receive this testimony to the fitness of the machinery, a contract for which you were pleased to authorize; but, besides communicating this information to your Lordships, I am desirous to state that, in the present unsettled state of the affairs of Dean Forest, I shall be obliged to postpone the introduction of the use of this machinery until a local officer to succeed Mr. Machen may be appointed, who has experience in the use and value of such machinery, else I should anticipate an entire failure of the system which I have recommended to your Lordships, and in the success of which, under favourable circumstances and superintendence, I have complete confidence. I have so entirely failed to effect any improvement through the local officers, who are wedded to their own accustomed ways that, until a change takes place favourable to my views, I should

should not be justified in putting into peril the success of a system which I consider calculated to be of great eventual utility. I am aware that Mr. Clutton disapproves of the system, but I apprehend he has no experience of it, as recommended by me, and I entirely dissent from his opinion on the subject. I do not recommend that timber and wood should be converted on behalf of the Crown, but that in a country where roads are bad, facilities should be presented to purchasers; and I have not met with any person of experience to whom I have mentioned the plan who does not think it likely to be productive of great advantage.

But my present object is to apprize your Lordships that, while I had hoped to establish this machinery in Dean Forest by the 1st of October, the commencement of operations must necessarily be postponed for a time.

I have, &c.

The Right Honourable
the Lords Commissioners of Her Majesty's Treasury.

(signed) *T. F. Kennedy.*

No. 17.

Sir, Treasury Chambers, 23 September, 1853.

With reference to your letter of the 8th instant, I am directed by the Lords Commissioners of Her Majesty's Treasury to acquaint you, that it is satisfactory to their Lordships to receive so good an account of the sawing-machinery to be established in Dean Forest, the adoption of which they sanctioned some time back. My Lords would here add, that nothing which has transpired has tended, in any degree, to shake their confidence in the success of the system, as proposed by you, in pursuance of Mr. Brown's Report, as a great object of convenience to the purchasers of wood, and consequently, as a means of securing better prices.

My Lords, therefore, regret to find that you propose to postpone the erection of this machinery, until a successor be appointed to Mr. Machen. As some time may elapse before that can be satisfactorily done, my Lords are of opinion that the sawing-apparatus should be established in the forest as early as possible, in order that the buyers of timber may have the advantage of it during the present autumn. My Lords, however, are alive to the necessity of placing a new system under the care and superintendence of a person well qualified to do it justice, by previous knowledge of its working; and they are, therefore, pleased to authorize you to ascertain if you can obtain the assistance of some well-qualified and experienced person to whom the starting of this machine, and the system involved in it, could be entrusted, and on what terms; and their Lordships request that you will report to them the result, in order, not only that the system may have a fair trial, but also that no time may be lost. If it answers in the Forest of Dean, the assistance of the same person may be required for its introduction elsewhere.

I am, &c.

The Right Honourable T. F. Kennedy.

(signed) *G. Arbuthnot.*

No. 18.

Sir, Office of Woods, &c., 28 September, 1853.

I am commanded by the Commissioners of Her Majesty's Woods and Forests, with reference to the sawing-machinery by steam-power, now in course of preparation for the use of Dean Forest, to transmit herewith copy of a letter addressed by the Commissioner to the Lords of the Treasury, dated the 8th instant, together with a copy of their Lordships' reply, dated the 23d instant, and to request you to advise as to the best mode of carrying into effect their Lordships' instructions, keeping in view the difficulties apprehended by the Commissioner, as stated in his letter of the 8th instant, at the same time that he has been most desirous of successfully establishing sawing-power by steam in Dean Forest at the earliest period.

I am further to state that the Commissioner had requested Messrs. Clayton & Shuttleworth to be prepared to send a man into Dean Forest, to take charge of the machinery for six months; and I am to request that you will communicate with them as to the best means of promoting the wishes of the Lords Commissioners of the Treasury.

I am, &c.

Mr. James Brown.

(signed) *G. S. Bedford.*

No. 19.

Gentlemen, Office of Woods, &c., 28 September, 1853.

I am commanded by the Commissioner in charge of Her Majesty's Woods and Forests, with reference to the sawing-machinery by steam-power, now in preparation by you for the use of Dean Forest, to state that it is the wish of the Lords Commissioners of Her Majesty's Treasury that the machinery should be established in the forest at an early period, and that Mr. Brown has been requested to communicate with you, with a view to the best arrangements which can be made for this purpose.

I am, &c.

Messrs. Clayton & Shuttleworth.

(signed) *G. S. Bedford.*

Dean Forest.
Sawing-Power.

No. 20.

Sir, Office of Woods, &c., 28 September, 1853.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests to state that, in consequence of a communication from the Lords Commissioners of Her Majesty's Treasury, he must postpone, for the present, the sale of timber in Dean Forest, authorized by letter addressed to you on the 26th instant, but the sale of cordwood may proceed as intended.

I am further to state, that sawing-machinery by steam-power, for the use of the forest, is in preparation, and the Lords of the Treasury are desirous that it should be brought into action as speedily as may be, and be available for the timber now on hand. Further instructions will be issued at an early period; but, in the meantime, the sale of timber must be postponed.

I am, &c.

Edward Machen, Esq. (signed) *G. S. Bedford.*

No. 21.

Sir, Office of Woods, &c., 29 September, 1853.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests, with reference to the letter addressed to you yesterday, transmitting copies of the Commissioner's letter, dated the 8th instant, to the Lords of the Treasury, together with copy of their Lordships' reply, dated the 23d instant, respecting the erection of the sawing-machinery in Dean Forest, to enclose herewith for your information copy of a letter, dated the 30th ultimo, received from Messrs. Clayton & Shuttleworth, copy of which was sent to the Lords of the Treasury, with the Commissioner's Report of the 8th instant.

I am, &c.

Mr. James Brown. (signed) *G. S. Bedford.*

No. 22.

Sir, Office of Woods, &c., 3 October, 1853.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests, with reference to the sawing-machinery by steam-power, now in preparation for the use of Dean Forest, to transmit herewith, for your information, copy of correspondence which has taken place with the Treasury, and other parties, connected with this subject; and I am to request that you will consider all these documents, and report at your early convenience whether you will be prepared to give effect to the wishes of the Lords Commissioners of Her Majesty's Treasury, for the early introduction into the forest of sawing-machinery, in co-operation with Mr. Brown and Messrs. Clayton & Shuttleworth. I am to state that the Commissioner had been disposed not to propose to you to undertake this service, in conformity with the wishes expressed by you not to undertake to effect further changes of management in the forest; but the Treasury having expressed a contrary wish, it is the duty of the Commissioner, so far as is in his power, to give effect to their Lordships' instructions, and he is desirous to be enabled to report to them on the subject.

I am further to state, that the plan would necessarily be to erect the locomotive house and machinery in a spot convenient for the timber now on hand, and that the plan of operations would necessarily be laid down by Mr. Brown, in concert with Messrs. Clayton & Shuttleworth; but it is obvious that its success must entirely depend on the cordial co-operation of the officers of the forest, under the great disadvantage, necessarily, of their having had no experience of the system.

I am, &c.

Edward Machen, Esq. (signed) *G. S. Bedford.*

No. 23.

My Lords, Office of Woods, &c., 3 October, 1853.

I BEG leave to acknowledge the receipt of your Lordships' letter of the 23d instant, and, in compliance with the instructions therein contained, that the sawing-machinery by steam-power, for the use of Dean Forest, should be established in the forest at an early period, beg to acquaint your Lordships that I at once directed Messrs. Clayton & Shuttleworth to expedite the construction of the machinery as much as possible; and that it appeared to me that I could not do otherwise than refer to Mr. Brown to advise (having throughout relied on, and had the benefit of, his practical assistance, without which I should have been unable to undertake this important experiment), and, in communication with Messrs. Clayton & Shuttleworth, report as to the best means of promoting the wishes of your Lordships, both as regards the speedy erection of the machinery and the employment of some person properly qualified to superintend the management of the same.

Having thus complied with your Lordships' instructions, as signified by letter of 23d instant, I beg leave to state that I am extremely apprehensive as to the result, on the grounds

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grounds stated in my Report of the 8th instant; and, seeing that Mr. Machen has shown a decided reluctance to undertake any change of system, and that the same remark applies to Mr. Langham, and that without their cordial co-operation I do not anticipate success. In proof of this ground of apprehension, I cannot but refer to the entire want of success I have had as to felling trees before they are stripped, and in the mode of drying flittern bark. Besides, as to sawing by machinery, Mr. Machen and Mr. Langham are wholly inexperienced; and, without any blame to them, I should think them not qualified to introduce the system, which must be dependent, not only on the engineers but on the forest officers; and I am apprehensive that a fair experiment cannot be made, without virtually, and to a certain extent, superseding the authority of the existing officers of the forest. But, notwithstanding these apprehensions, I have taken instant steps to comply with your Lordships' instructions.

I have, &c.
(signed) *T. F. Kennedy.*

P.S.—Copy of the whole of this correspondence will be transmitted to Mr. Machen, to explain to him your Lordships' wishes, with a request that he will report whether he will be prepared to give effect to them, in co-operation with Mr. Brown and Messrs. Clayton & Shuttleworth, the combined practical co-operation of all being indispensable to the undertaking; and your Lordships will now be aware of all the steps I have taken to effect your wishes.

The Right Honourable the
Lords Commissioners of Her Majesty's Treasury.

No. 24.

Sir, Whitemead, 5 October, 1853.

I HAVE received your letter of the 3d October, with a copy of the correspondence which has taken place with the Treasury and other parties, with reference to the sawing-machinery by steam-power, now in preparation for Dean Forest; and I beg to say, that I shall be prepared to give effect (to the best of my power) to the wishes of the Lords Commissioners of Her Majesty's Treasury, in co-operation with Mr. Brown and Messrs. Clayton & Shuttleworth.

At the same time, I should very much prefer being altogether released from an office that I can no longer hold with comfort to myself, or satisfaction to those above me.

I am still more anxious to leave, as I do not expect the introduction of steam-sawing likely to answer here: 1st. Because another fall of timber of equal extent as that of the present year will take every timber tree in the forest, and the young plantations will not supply any for forty or fifty years to come; and 2d, From all the inquiries I have made of persons now using steam-power for sawing, they do not think it likely to succeed here. On this point, I cannot speak from experience, but I mention it to show that in case of the experiment failing, blame may be attached to me; and I do so more especially because you state, in your letter of the 3d instant to the Treasury, "that the entire want of success in felling "trees before they are stript, and in the mode of drying flittern bark, has arisen from my "decided reluctance to adopt any change of system." Now, with respect to the first of these, I have already stated in my letter of June 4th (and I think I have a right to expect credit for this statement), that it was from no reluctance to adopt a new system, but from the utter impossibility, in consequence of the scarcity of workmen and the very large fall of timber, that the plan could not be carried into effect in the present year. With respect to the latter, viz., the drying of the flittern bark, your plan of placing it upon stages was fully carried out; and fortunately it was carried out entirely under the directions of the woodmen from Scotland, without any interference on our part; that it was a failure, and so much of the bark was damaged, I cannot be answerable for, but the failure was so evident that every one here (and not the purchasers only) are convinced of the superiority of the old mode of placing it upright; and this opinion is not confined to this neighbourhood. But I yesterday asked Mr. Menzies (whom you sent down to look at this forest), and he told me that he had always been accustomed to the stages in Scotland; but, when he came to Windsor, he found they did not answer, under altered circumstances, and that now he scarcely ever put any upon stages.

I have gone at length into these two points, as the manner in which they are stated in your letter is calculated to do me an injury at the Treasury; and, although I cannot but feel that I have not been treated with the consideration that a servant of the Crown might fairly have expected, after so long a service, I hope I have stated nothing too strongly.

I trust that when the Lords Commissioners of the Treasury see (as they will by your last letter) that the experiment will require the authority of the existing officers to be virtually superseded, that they will make some arrangement to relieve me from so painful a position.

I mentioned, in my letter of August 29th, that it was possible the health of part of my family might make it necessary for me to quit this house, before I was relieved from the duties of my office, and I believe this will be necessary in the early part of November.

I have, &c.
(signed) *Edward Machen.*

P. S.—May I request that this letter may be sent to the Treasury.

The Right Honourable T. F. Kennedy.

Dean Forest.

Sawing-Power.

No. 25.

Sir, Arniston, 10 October; 1853.

I HAVE had the honour to receive a letter from the Office of Woods and Forests, dated the 28th September, respecting the sawing-machinery by steam-power, now in course of preparation for Dean Forest, transmitting copy of a letter addressed by you to the Lords of the Treasury, dated the 8th September, together with a copy of their Lordships' reply, dated the 23d September, and copy of a letter, dated 30th July, received from Messrs. Clayton and Shuttleworth, with a requisition that I should advise as to the best mode of carrying into effect their Lordships' instructions, keeping in view the difficulties apprehended by you, as stated in your letter of the 8th of September.

Having given these documents, as well as the whole subject in connexion with the proposed sawing-power by steam for Dean Forest, my most careful and renewed consideration, I have to remark, in the first place that, in my First Report on Dean Forest, dated the 18th September, 1852, I state, in reference to the sawing-power, that "I do not recommend this "under a mere theoretic and general impression of its utility, but from a thorough conviction "that it is indispensably necessary for the profitable management of the forest, and this con- "viction is based upon 20 years' actual experience as to the very great and profitable results "arising from the skilfully-directed use of sawing-power where extensive woodlands exist." In the same Report I also state, in reference to the sawing-power, "In thus recommending "locomotive steam-power for sawing of timber in the Forest of Dean, I may at the same time "remark, that I am under the impression that, in consequence of the system being altogether "new, and, I may say, foreign to the locality, its introduction will not at first be appreciated "by the generality of the parties who are to be benefited by it; but, as soon as the more "intelligent wood-purchasers lay hold on its usefulness, others will follow their example, till, "in a very short time, there will be, in reality, a great competition for the use of the saws."

Keeping these statements in view, I have to report, in reference to your letter addressed to the Lords of the Treasury respecting the sawing-power for Dean Forest, and to their Lordships' reply that, if you can place the sawing-power under skilful direction in the forest, the sooner it can be established there, the more profitable will be the ultimate results. I must, however, remark, that the skilful direction to which I refer is not that which could be exercised by a mere machinist who may have experience in conducting the actual operations of sawing: he, if I may so express myself, could form only a part of the requisite machinery, however well qualified he might be in his own department, and could have no influence whatever in skilfully directing the general usefulness of the sawing-power, in respect to inducing purchasers of timber to lay hold on the advantages it is so well calculated to secure to them, and thus making it subserve the interests of the Crown. The great and profitable results which I hold out as arising from the skilfully-directed use of sawing-power, are to be obtained only through the exertions of an intelligent, persevering, and skilful manager in the forest, who, from past experience, can appreciate the value of the scheme, can enter into it with heart and hand, and who, by a few well-directed examples of business with the more intelligent timber-merchants, would induce others to lay hold on the power presented to them for the conversion of their purchases. Without these qualifications in the manager of the forest, I can hold out no hope that the sawing-power will succeed satisfactorily; but, if he have these qualifications, there is no doubt that very great and profitable results will soon be realized.

I must, however, remark, that as the scheme of sawing proposed for the Forest of Dean is altogether new, and, I may say, foreign to the locality, and its introduction may not at first be appreciated by the generality of the parties who are to be benefited by it, it is the more necessary that the manager who is to direct its usefulness should be a person divested of all the antiquated prejudices of the forest, and one who could place before his customers, in a true business light, the merits of the scheme the Crown holds out to them for the conversion of their timber.

Having, in conformity with the instructions sent to me, communicated with Messrs. Clayton, Shuttleworth & Co. on the subject, I beg to annex copy of their reply to me, in which it will be seen they strongly express their distrust as to the system proposed in connexion with the sawing-power being efficiently carried out under the present management of the forest. That reply is as follows:

"Your letter of the 30th ultimo is to hand, and we note its contents. We have received "a letter, a post or two back, from the Office of Woods and Forests, requesting us to proceed, "speedily as possible, with the saw-machinery and steam-engine intended for the Forest of "Dean. Prior to this notice we had, as a matter of course, in accordance with a request from "the same quarter, discontinued the work, but shall now press it forward with all possible "dispatch, and hope, in the course of a month, to be able to deliver the same. With "reference to the present officials of the forest taking the charge and management of the "machinery, as well also as carrying out the new system intended to be adopted, we must "beg to observe, that we think such apppointments would be very injudicious, and likely, if "not certain, to thwart the entire scheme; whereas, in the hands of unprejudiced persons, "the whole scheme would, in our opinion, answer admirably, both in a commercial and "mechanical point of view, and therefore trust disinterested and competent persons will be "appointed to take the management of the whole business; and, with such, we shall have "great pleasure in working and carrying out the system now proposed to be adopted."

Having thus shown that, in order to adequate success in the application of sawing-power, it is absolutely necessary that the manager should, in every respect, be qualified for the undertaking,

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undertaking, and that more especially, seeing the scheme of sawing proposed for the Forest of Dean is altogether new and foreign to the locality, he should be divested of all the antiquated prejudices of the forest, and able to carry out the scheme in correspondence with the improving spirit of the times, and also that Messrs. Clayton & Shuttleworth are of the same opinion in this respect with myself, it still remains for me to advise as to the best mode of carrying into effect their Lordships' instructions in respect to the sawing-power, "in order, not only that the system may have a fair trial, but also that no time may be lost."

In the simple management of the machinery, there is no difficulty whatever involved; for this purpose, I have no doubt, the services of an efficient man may be secured from Messrs. Clayton & Shuttleworth, at any time. Therefore, in so far as respects this branch of the management, the sawing-power may be introduced into the forest with all convenient dispatch; but, as to the higher branches involved in skilfully conducting the whole scheme, the management of these must, of course, fall to the deputy-surveyor, who, I am of opinion, has never had the least experience in such a business; consequently, it is hardly to be expected that, under his management, the system can have a fair trial.

While making my survey of the forest in July, 1852, I made inquiry at Mr. Machen, the deputy-surveyor, and at Mr. Langham, his assistant, respecting their opinion as to the advantages of a sawing-power for the forest. They both told me that, from their inexperience on the subject, they were not able to give an opinion upon it; this being the case, therefore, in respect to these officers, I am again compelled to state that, under their management, I have no hope that the system could have a fair trial.

However, as the Lords of the Treasury are desirous that the sawing-apparatus should be established in the forest as early as possible, in order that the buyers of timber may have the advantage of it during the present autumn, if their Lordships are willing to incur the responsibility of the scheme with forest officers who have hitherto had no experience in it, and who appear very much indisposed to change and improvement, I can only, under these circumstances, advise that, as soon as the sawing-power shall be erected in the forest, the scheme should be advertised in the different local newspapers, when there is a possibility of some intelligent wood-merchant seeing its advantages, and availing himself of it.

Other than this, I can give no further advice under the present circumstances of the case; and I conclude by stating that, if the deputy-surveyor and his assistants are prepared to give effect to the intentions of the Lords of the Treasury, the scheme may partially succeed; but if, on the other hand, they are, either from inexperience unable, or from prejudice indisposed, to work the system wisely and energetically, the result must, to a certainty, prove a failure.

I have, &c.

The Right Honourable T. F. Kennedy. (signed) *James Brown.*

No. 26.

My Lords, Office of Woods, &c., 15 October, 1853.

I beg leave to refer to my letter of the 3d of October, on the subject of Mr. Wilson's letter of the 23d of September, relative to the introduction of sawing-machinery in Dean Forest, and I annex for your Lordships' information, copies of the letters which were addressed to Messrs. Clayton & Shuttleworth, to Mr. Brown, and to Mr. Machen, in order to enable me to ascertain by what means I should be enabled to carry into effect your Lordships' desire that the sawing-machinery should be brought into action at a very early period.

I also annex, for your Lordships' information, copy of a reply which I have received from Mr. Machen and from Mr. Brown respectively.

I cannot help earnestly submitting to your Lordships my opinion, that it would be most inexpedient to press the introduction of the sawing-machinery until new arrangements are made for the management of the affairs of Dean Forest, as in the present state of the local authority in Dean Forest, I should anticipate an entire failure of the system which I originally recommend to your Lordships, on the basis of the best arrangements being made for its success; and one of the reasons of my having recommended Mr. Brown, as Mr. Machen's successor, was his intimate practical knowledge of the system of effecting sales on the principle of sawing by machinery being connected with the sales of the timber; but I should not anticipate that even Mr. Brown himself would succeed in introducing the system with effect, unless he were clothed with the authority and influence of the highest local officer in the forest. Mr. Machen is evidently unwilling to decline nominally to undertake the service, but he does not himself anticipate success; and I apprehend it would be unsuitable that Mr. Brown should, at the present moment, be instructed to proceed (even if it were in his power to do so) to Dean Forest to establish the machinery, and I all along contemplated that his presence would be essential.

I am unwilling to be led into the collateral subjects to which Mr. Machen refers in his letter, especially as relates to the drying of the flittern bark, but will only state, that I take a totally different view of this subject from Mr. Machen, and that I consider I have great cause to be dissatisfied with what has taken place in the forest on this subject, and that it is not impossible that a serious loss may arise, in consequence; but it is a subject which must undergo a strict investigation. I greatly regret that I attempted to introduce any improvements in the forest under the existing local administration; it was a serious mistake, on my part, to make the attempt, but I did not anticipate the passive resistance which I have met with.

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Mr. Machen adverts to Mr. Menzies having recently visited the forest, and states that I had "sent him down to look at this forest." I think it necessary to state that I did nothing of the kind; but, having received a communication from Mr. Gore, acquainting me that Mr. Menzies wished to visit Dean Forest, and requesting that he might be furnished with a letter of introduction to Mr. Machen, such a letter was at once furnished; but, with the object of Mr. Menzies' visit, I was in noways concerned.

I beg leave to state to your Lordships, that nothing would be more disappointing to me than anything approaching to a failure in the introduction of the sawing-machinery; my confidence in its success, if introduced under favourable auspices, being unabated, but, I should not have the slightest expectation of success, if the attempt were made under present circumstances. I am, however, of opinion that a delay for a certain time need not infer the loss of such advantage as can be derived with reference to the timber now on hand, because, by postponing its sale until the machinery can be advantageously set in motion, the only disadvantage which can arise is, the delay in realizing the price of the wood, which need not, by proper care, suffer in quality by the delay of a few months, and an eventually better price must far more than compensate for any delay which it can be necessary to incur. In conclusion, I must venture again to state to your Lordships my anxious hope that you may be pleased not to require the establishment of the sawing-machinery to take effect, until new arrangements are completed for the arrangement of the affairs of Dean Forest.

I am, &c.

The Right Honourable (signed) *T. F. Kennedy.*
the Lords Commissioners of Her Majesty's Treasury.

No. 27.

Sir, Ellwood, 20 October, 1853.

Mr. Machen has shown me the correspondence on the subject of the steam-sawing-machine, which is intended to be put into operation in Dean Forest, and I am very sorry to find a statement in your letter to the Treasury, dated the 3d instant, to the effect that I have, with Mr. Machen, shown a "decided reluctance to undertake any change of system," and "that without our cordial co-operation you do not anticipate success," referring at the same time to the entire want of success you have had in felling trees before stripping, and in the mode of drying flittern bark; and I beg most respectfully to state, that I certainly am at a loss to know the reason of such observations having been applied to me, as, so far from wishing to impede, or place any obstacle in the way of any new experiment, either with reference to the steam-sawing-machine, of drying bark, or any other experiment whatever, I am not only perfectly willing (as I always have been), but should feel glad to assist in any way in my power to carry out any of your measures. I have been brought up from a boy in the business, and should hope am fully capable of performing the duties of my office in such a manner as to meet your approval.

I trust you will pardon this letter, which is the first during my long services I have ever written officially; and believe me, that I shall always feel it my anxious duty to carry into effect any directions you may be pleased to give in the carrying on the business of the forest.

I have, &c.

The Right Honourable T. F. Kennedy. (signed) *John Langham.*

No. 28.

Sir, Treasury Chambers, 1 November, 1853.

I am commanded by the Lords Commissioners of Her Majesty's Treasury to acquaint you, that my Lords have carefully considered the purport of your communications of the 3d and 15th ultimo, in relation to the introduction of the saw-mill, now in the course of construction, into the Forest of Dean, as well as the various communications which accompanied the letter of the 15th.

My Lords regret that you should still continue to entertain objections to the erection of the mill at the earliest possible period, which their Lordships are anxious should be done, in order that the purchasers of timber should have the advantage of it; and my Lords entertaining an opinion that the sale of timber is not likely to be made on more favourable terms, if delayed, as you suggest, are unwilling to adopt that alternative.

My Lords observe, that you still rest your objection to the establishment of the sawing-machinery at present upon your want of confidence in the co-operation of the existing officers in charge of the forest. My Lords are, however, gratified to observe that Mr. Machen, in his letter, expresses his perfect willingness to co-operate with those who may be appointed for the purpose of introducing this machinery; and, whatever may be the private opinion of Mr. Machen with regard to its ultimate success, of which my Lords entertain no doubt, their Lordships have the utmost confidence that Mr. Machen, after a long life of valuable public service, will afford all the assistance in his power. My Lords feel bound, in justice to that gentleman, to express this confidence in his expressed intentions, altogether independent of the questions upon which they regret to observe that there exists some difference between him and you, and with regard to which they would not wish to be understood

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understood to express any opinion whatever, in the present state of their knowledge of the facts.

My Lords observe that you state, in your letter of the 3d ultimo, that you have all along relied upon the assistance of Mr. Brown in undertaking this important experiment, and that you have referred to him to advise how their Lordships' instructions of the 23d of September could best be carried into effect; and, by your letter of the 15th ultimo, my Lords are led to infer that you regard it as necessary for the success of the experiment, not only that it should be delayed until a successor is appointed to Mr. Machen, but they also infer that you are of opinion that, for this purpose, it is essential that Mr. Brown should be appointed the successor of Mr. Machen.

My Lords entirely approve of your having resorted to Mr. Brown for advice, the more so as it was chiefly on the able report of that gentleman that they were induced to adopt the experiment; but my Lords would wish to guard themselves from so important an inference, now for the first time put forward, that their doing so implied in any way the appointment of any particular individual as the successor of Mr. Machen. Without at this time wishing to express an opinion, one way or another, in regard to who shall succeed Mr. Machen, my Lords would call your attention to the fact, that important as the system of the steam saw-mill may be in itself, there are other far higher and more important considerations involved in the local administration of that extensive property, to which regard must be had, whenever a successor is appointed; and, as the whole of this subject is now under the careful and anxious consideration of my Lords, they are desirous that the conclusion at which they may ultimately arrive, on broad and general considerations, should not be anticipated upon a comparatively small and collateral point.

But, seeing that this appointment may yet be postponed for some time, my Lords are still unwilling that the establishment of the saw-mill, now ready, should be indefinitely delayed; and here my Lords must remark, that you appear to have misunderstood their communication of the 23d of September. In that letter, my Lords authorized you to endeavour to obtain the assistance of some well-qualified and experienced person to whom the starting of this machine, and the system involved in it, could be entrusted. So far, as my Lords understand from your letter, that attempt has not been made, unless you expected Mr. Brown to inform you upon that point. As, however, Mr. Brown appears to have made no report thereon, my Lords are still desirous that that attempt should be made forthwith. Nor, when they refer to your letter of the 28th of January last, can they anticipate any difficulty in procuring a suitable person, who thoroughly understands the entire system, and who will be able to do full justice to the experiment. It appears by that letter, that in Scotland the system is in universal use, and has been so for the last 30 years, and that new saw-mills, on a large scale, are being constantly erected, and conducted with the greatest success. My Lords cannot, therefore, but entertain a hope that a suitable person may be found in Scotland, of great experience, and in every way able and willing to give effect to Mr. Brown's recommendation, and to your wishes.

My Lords are, therefore, of opinion that an effort should be made to obtain such a person with the least possible delay; and they authorize you to advertise sufficiently extensively, particularly in the most likely Scotch papers, and also in such London papers as may be thought suitable, for a person who thoroughly understands, and has had practical experience in the best mode of conducting this system upon an extensive scale in Scotland; and, in the meantime, their Lordships request that you will have the goodness to ascertain what is usually paid to such a person, in order that they may fix a fair salary.

My Lords request that a copy of this communication may be sent to the present deputy-surveyor of Dean Forest, with an expression of their Lordships' implicit confidence and reliance that he will, to the best of his ability, aid and co-operate with such an officer in the introduction of the system, if you should be so fortunate as to obtain a suitable person.

I remain, &c.

The Right Honourable T. F. Kennedy. (signed) *C. E. Trevelyan.*

No. 29.

My Lords, Office of Woods, &c., 1 November, 1853.

I BEG leave to acknowledge the receipt of the communication made to me by command of your Lordships, by Sir Charles Trevelyan's letter of this day's date, in reference to my Reports to your Lordships of the 3d and 15th ultimo, in relation to the introduction of the saw-mill, now in the course of construction, into the Forest of Dean.

In obedience to your Lordships' commands, I will forthwith proceed to have an advertisement framed and published, in conformity with your Lordships' wishes; and, in order to do this effectually, I will transmit to Mr. Brown a copy of your Lordships' letter, as I am myself incompetent to frame such an advertisement as would do justice to the object in view, not having the practical knowledge which will give security to the form of the advertisement being such as to particularize the essential circumstances for the consideration of parties competent to undertake the service. So soon as I receive the form of advertisement from Mr. Brown, I shall direct it to be inserted in Scotch and English newspapers, according to your Lordships' instructions; and, so soon as I receive the proposals of intending offerers, I will transmit them for your Lordships' consideration and selection.

I will, in conformity with your Lordships' instructions, transmit a copy of Sir Charles

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Trevelyan's letter to the deputy-surveyor of Dean Forest, in order that he may be informed of your Lordships' instructions, in the most accurate manner.

I must beg permission, in conclusion, to state that I at once proceed to obey your Lordships' commands on this subject; but that the arrangement which seems to be contemplated by your Lordships is entirely different from that I originally ventured to recommend, inasmuch as a new officer will be introduced into the forest, at an expense which I never contemplated to be necessary; and I am very apprehensive of the satisfactory working of the system. An engineer to work the machinery, probably at an expense of 25 *s.* a week, was the only man whom I contemplated to be necessary, thinking that every other duty would be performed by the deputy-surveyor; and, unless the timber is to be converted on behalf of the Crown (which is a system I did not contemplate, and could not recommend), I think it will be extremely difficult to draw the line between the duties of the deputy-surveyor and those of the manager of the saw-mill. My conception of the system to be introduced was, that the deputy-surveyor would conduct the sales with an especial reference to a knowledge of the saw-mill; and that those would be the only duties required to be performed, except the mere working of the saw-mill by the subordinate workman to whom I have adverted.

I have taken the liberty to make these short observations, inasmuch as I do not see my way to the success of the undertaking, which will now be altogether upon a different principle from that which I presumed to recommend to your Lordships; and I trust, therefore, that your Lordships will not consider me, in any respect, responsible for the undertaking.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Honourable
the Lords Commissioners of Her Majesty's Treasury.

No. 30.

Sir, Office of Woods, &c., 1 November, 1853.

I BEG to transmit, for your information, copy of a letter dated the 1st of November, which has been addressed to me by command of the Lords Commissioners of Her Majesty's Treasury, together with a copy of my Report to their Lordships of the 15th ultimo, in relation to the introduction of the saw-mill, now in the course of construction into the Forest of Dean; and I annex a copy of a letter which I have addressed to their Lordships, in reply.

I have, therefore, to request that you will carefully peruse these documents; and, with all convenient dispatch, frame such a form of advertisement as you consider best calculated to effect their Lordships' wishes, transmitting it to me, and suggesting such newspapers in Scotland and England as you consider most likely to give a useful circulation to the advertisement. I apprehend their Lordships' intention to be, that an effort shall be made to procure a person highly qualified to conduct a saw-mill; but the party to be provided by Messrs. Clayton & Shuttleworth to manage the mere machinery must still be employed. Such is my impression; but it will be desirable that, in transmitting the advertisement, you should report your opinion, in order that I may transmit the same to the Lords Commissioners of Her Majesty's Treasury.

I am, &c.
(signed) *T. F. Kennedy.*

P. S.—A copy of Mr. Machen's letter of the 15th ultimo is also transmitted herewith.

Mr. James Brown.

No. 31.

Sir, Office of Woods, &c., 3 November, 1853.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests, to transmit to you a copy of a letter, dated 1st November, addressed to the Commissioner by command of the Lords Commissioners of Her Majesty's Treasury, on the subject of the introduction of sawing by steam-machinery in Dean Forest; and you will perceive, in the conclusion of that letter, that their Lordships request that a copy of it may be sent to you, in order that you may be informed, in the most accurate manner, of their Lordships' wishes on this subject.

I am, &c.
(signed) *G. S. Bedford.*

E. Machen, Esq.

No. 32.

Sir, Whitemead, 5 November, 1853.

I HAVE received Mr. Bedford's letter of the 3d instant, enclosing Sir Charles Trevelyan's, on the subject of the introduction of steam-sawing-power into the forest; and I have to request that the Lords of Her Majesty's Treasury may be informed that their confidence shall

shall not be disappointed; but that I will, to the best of my ability, aid and co-operate with the person who may be appointed to carry out the system in this forest. Dean Forest. Sawing-Power.

I may farther say, that I have, on every occasion of the introduction of new plans, honestly, and to the best of my power, endeavoured to carry them into effect, although those endeavours have not been appreciated, and although I might not concur in opinion as to their advantage.

I am extremely sorry to find, by an expression in the Treasury letter, that it may still be some time before my successor is appointed. I have stated, in my letter of 5th October, how desirous I was to be released from an office that "I could no longer hold with comfort "to myself, or satisfaction to those above me." To this, I am now obliged to add, that my health is beginning to suffer; still, however desirous of my release, I will continue as long as the public advantage requires it; but, as I mentioned in my letters of 29th August and 5th October, the time has arrived when I find it necessary to remove from this house, and I propose to do this on the 12th instant. I trust no inconvenience in the business of the forest will arise from this, as I shall still be on its borders, at Bicknor. I will keep a person in this house, and have fires in it.

In accordance with the directions of your letter of 5th October, I have agreed with James Brooks for the occupation of York Lodge until 1st May next. I hope this may not interfere with any arrangements as to the introduction of the sawing-machinery.

I am, &c.

The Right Honourable T. F. Kennedy. (signed) *Edward Machen.*

No. 33.

Sir, Arniston, 7 November, 1853.

I HAVE received your letter of the 1st instant, transmitting copy of a letter dated the 1st of November, which has been addressed to you by the Lords of the Treasury, together with a copy of your Report to their Lordships, of the 15th ultimo, respecting the introduction of the sawing-power, now in course of construction, into the Forest of Dean; and also a copy of your letter addressed to their Lordships, in reply. To these documents, you request that I should give my careful attention, and with all convenient dispatch frame such a form of advertisement as I may consider best calculated to effect their Lordships' wishes in respect to the procuring of a person highly-qualified to conduct the business in connexion with a saw-mill; and you further request that, in transmitting the advertisement, I should report my opinion on the subject, in order that you may transmit the same to the Lords Commissioners of Her Majesty's Treasury.

Having carefully perused the documents referred to, it appears that their Lordships are desirous to obtain the services of some well-qualified person who thoroughly understands, and has had practical experience in the best mode of conducting a sawing-power, and the entire system involved in it.

With reference to this subject, I stated, in my report of the 10th of October last, that "the great and profitable results which I hold out as arising from the skilfully-directed use "of sawing-power, are to be obtained only through the exertions of an intelligent, persevering, "and skilful manager in the forest." I must repeat that it is under the superintendence of such a person alone, that the scheme can possibly succeed to the full expectation of all interested.

In giving an opinion on the plan proposed by the Lords of the Treasury for putting into effect the sawing-scheme in Dean Forest, I can only state that, whoever may be chosen to take the management of the sawing-power, and of the system involved in it, must necessarily and in effect supersede the deputy-surveyor in the sale of the timber. The whole success of the scheme must rest on the influence of the manager to induce purchasers of timber to lay hold on the advantages it presents; and, were a person appointed in the forest with full power to put into effect the capabilities of the scheme, Mr. Machen's position would become a merely nominal one as respects the sales of timber. There would, in fact, under such a policy, be two deputy-surveyors established, one having the entire control of the sales of timber, and another the management of the plantations, each independent of the other in his own department. It requires little foresight to predict that such a system would lead to grievous misunderstandings, as well as prove a great barrier to the successful management of the forest business; it would prove utterly impossible, in practice, to draw a decided line between the province of Mr. Machen, on the one hand, and that of the manager of the sales of timber, on the other; and the former would have it completely in his power to paralyze all the efforts of the latter. In short, under such circumstances of management as are to be inferred from the plan proposed by the Lords of the Treasury, in respect to the conducting of the sawing-scheme, it would, in my opinion, be practically impossible for the deputy-surveyor and the manager of the saw-mill to co-operate satisfactorily in the business. I conclude my opinion, therefore, by stating, that the arrangement which their Lordships seem to contemplate is quite different from that which I originally had in view, and also different from all practical arrangements I have ever had experience of, in respect to the successful prosecution of the business in question. To give the system a fair trial, one experienced man must have the entire control of it, in connexion with the other departments of the forest management.

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In order to carry out their Lordships' instructions, I proceed to draw up such a form of advertisement as I consider best calculated to obtain the services of a person for the purpose in view, though the duties required, and the qualifications necessary, are of such a peculiar kind that it is impossible to define them in an advertisement. The only way in which I can suggest these duties could be properly defined, would be, in the event of a candidate, or candidates apparently possessed of the requisite qualifications coming forward, placing the entire reports and discussions on the subject before them. The advertisement is as follows :—

By order of the Lords Commissioners of H. M. Treasury.

Wanted immediately, in one of Her Majesty's forests, a person who thoroughly understands, and has had great practical experience in the most improved mode of managing the sawing of timber by steam-power, and in effecting extensive sales with the public, in connexion therewith.

Besides having a thorough knowledge of the most improved mode of managing advantageously a sawing-establishment, he must also be possessed of sound judgment, in respect to the quality and value of oak timber, whether cut or in the round state; and it is especially requisite that he should be well qualified to conduct with skill and energy an extensive business among purchasers of timber.

Intending candidates for the situation, will please send in their proposals, addressed to

I am of opinion that the services of a person properly qualified for the undertaking proposed by their Lordships, will not be secured for less than 250 *l.* per annum.

In order that the advertisement may be sufficiently extensively circulated, I would advise that it should be published in the following newspapers:—"The Times," "The Builder," "The Newcastle Courant," "The Liverpool Courier," "The Manchester Guardian," "The Glasgow Herald," "The Scotsman," "The North British Advertiser," and "The Gardener's Chronicle."

I have, &c.

The Right Honourable T. F. Kennedy. (signed) *James Brown.*

No. 34.

My Lords, Office of Woods, &c., 7 November, 1853.

I HASTEN to transmit, for your Lordships' information, copy of a letter which I have this day received from the deputy-surveyor in Dean Forest, in reply to my letter of the 3d of November, transmitting, by your Lordships' desire, a copy of Sir Charles Trevelyan's letter of the 1st, on the subject of sawing-machinery in Dean Forest, and I beg leave to say that, so soon as I receive from Mr. Brown a reply, forwarding a draft of an advertisement framed in conformity with your Lordships' instructions, I will lose no time in transmitting the same for your Lordships' consideration and instructions, so that your views may be carried into effect as exactly as may be in accordance with your wishes.

I have, &c.

The Right Honourable (signed) *T. F. Kennedy.*
the Lords Commissioners of Her Majesty's Treasury.

No. 35.

Sir, Office of Woods, &c., 7th November, 1853.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests to acknowledge the receipt of your letter of the 5th, in reply to the Commissioner's letter of the 3d, and I am to acquaint you that the Commissioner has lost no time in forwarding a copy of your letter to the Treasury, in order that their Lordships may be informed of everything which you have wished to state.

I am also to state that it had all along been the Commissioner's wish that you should have been relieved from your duties at the 1st of July last, which was as near a compliance with the desire expressed by you as it was in the Commissioner's power to recommend; but the Lords Commissioners of Her Majesty's Treasury having seen fit to direct otherwise, the Commissioner has had no alternative but to obey the instructions which have been issued to him.

The Commissioner has all along felt, as indeed was expressed by you, that it was undesirable that you should be called upon to undertake many changes of system in the forest; and, in reference to the sawing-machinery, he has undoubtedly felt that, having no experience in making sales of timber, with express reference to advantages to be derived from the use of the circular saw, you would make an attempt to introduce so new a system into the forest under every disadvantage; and, therefore, it was his individual opinion that by far the preferable course, both for the public interest and for your individual comfort, would have been that you should not have been called upon to undertake this service. But the Lords Commissioners

missioners of Her Majesty's Treasury have decided otherwise; the Commissioner is, therefore, bound to give effect, so far as depends on him, to their Lordships' desire. The Commissioner regrets extremely to be informed that your health has suffered, which renders it a subject of still more regret to him that you should not have been relieved of your duties at the 1st of July last, as recommended by him,—an arrangement which he urged as far as he could with propriety do so.

Dean Forest.
Sawing-Power.

I have, &c.

E. Machen, Esq. (signed) *Geo. Sale Bedford.*

No. 36.

My Lords, Office of Woods, &c., 10 November, 1853.

Referring to my letter addressed to your Lordships on the 1st of November, and also my letter of the 7th of November, transmitting from Mr. Machen on the introduction of steam-machinery in Dean Forest, I now beg leave to transmit, for your Lordships' information, the draft form of an advertisement prepared by Mr. Brown, which he has embodied in a report addressed to me, dated 7th November, which has reached me this day, the whole of which is annexed, in order that your Lordships may be apprised of Mr. Brown's opinion on this subject.

I beg that I may be favoured with your Lordships' instructions as to proceeding to publish the advertisement, either as it has been prepared, or as it may be amended by your Lordships. The only observation on this part of the subject which I wish to make is, that some of the newspapers in which it is most important to insert the advertisement, especially in Scotland, are published only weekly, and therefore I think that it would be necessary in them to give the advertisement for three weeks.

I should not have troubled your Lordships with any further statement on this subject, had not this opportunity been afforded to me to remove a misunderstanding which I regretted to observe, by your Lordships' letter of the 1st of November, had arisen in the minds of your Lordships, and which appears by the following quotation from your letter of that date. After some previous statement, these words occur:

"My Lords are led to infer that you regard it as necessary for the success of the experiment, not only that it should be delayed until a successor is appointed to Mr. Machen, but "they also infer that you are of opinion that, for this purpose, it is essential that Mr. Brown "should be appointed the successor of Mr. Machen. My Lords entirely approve of your "having resorted to Mr. Brown for advice, the more so, as it was chiefly on the able report "of that gentleman that they were inclined to adopt the experiment; but my Lords would "wish to guard themselves from so important an inference, now for the first time put forward, that their doing so implied, in any way, the employment of any particular individual "as the successor of Mr. Machen, without at this time wishing to express an opinion, one way "or another, in regard to who shall succeed Mr. Machen."

I am anxious to assure your Lordships that the inference you have been led to draw as to my meaning, has no real foundation in that meaning; and if, in my letter of the 15th of October, I used words which imperfectly expressed my thoughts, it was from no wish to raise the inference which has arisen in the minds of your Lordships. In order to show what my real meaning was, I beg leave to refer to my Report, of so old a date as the 12th of February, 1853, in which I, for the first time, mentioned Mr. Brown as a possible successor to Mr. Machen, and stated that he was the person incomparably the best qualified to fill that position with whom I was acquainted, as evidenced by his six Reports on Dean Forest and Highmeadow Woods, which I had transmitted to your Lordships. I stated, that "if a more "highly-qualified person cannot be had, I am of opinion that Mr. Brown is eminently fitted "to promote the public service, somewhat in the manner indicated in his six able Reports on "Dean Forest and Highmeadow Woods." I further added, on the 12th of February, that, "besides the general management of the forest, his extensive experience in the use of the "circular-saw would secure, in his hands, the success of that system, from which I anticipate, "in good hands, much advantage."

Such were the views which I presumed to express to your Lordships on the 12th of February last, two months previously to your Lordships having been pleased to express any disapprobation of my having employed Mr. Brown on my own responsibility, the first intimation of which was conveyed to me on the 15th of April, 1853, Mr. Brown's Reports on Dean Forest and Highmeadow Woods having been transmitted to your Lordships on the 27th of November, 1852, and on the 20th January, 1853 respectively, and referred, by your Lordships' command, to Mr. Clutton, on the 31st March, 1853, and no intimation of disapprobation made from November, 1852, until April, 1853; on the contrary, implied approbation was given, inasmuch as Mr. Brown's recommendation as to steam-machinery was adopted, and carried forward.

I have now to advert to that portion of my more recent Report of the 15th of October, 1853, which I fear has created an erroneous impression on your Lordships, as follows:—

"One of the reasons of my having recommended Mr. Brown, as Mr. Machen's successor, "was his intimate practical knowledge of the system of effecting sales on the principle of

Dean Forest.
Sawing-Power.

"sawing by machinery being connected with the sales of the timber; but I should not anti-
"cipate that even Mr. Brown himself would succeed in introducing the system with effect,
"unless he were clothed with the authority and influence of the highest officer in the
"forest."

The intended point of this observation was, that, to succeed in introducing the system with effect, it was necessary that the individual attempting it should be the deputy-surveyor, and that the deputy-surveyor should be an individual having a thorough experience of the system; that if Mr. Brown were deputy-surveyor, he would succeed; that if he were not, even he would fail, with all his experience and knowledge to aid him. But my expressions were by no means intended to obliterate and supersede the distinct statement which I made in my Report of the 12th of February last, in which I presumed to state that the person of the highest qualifications who could be procured ought to be appointed to succeed Mr. Machen; if Mr. Brown were that person, he ought to be so appointed; if he were not, that the individual who was undeniably his superior in all qualifications, including those respecting the sawing-machinery, ought to be preferred to him.

To these opinions, I humbly but decidedly adhere; and, in my letter of the 15th of October, it was no part of my intention to depart from them in the slightest particular; and, therefore, I beg leave to express my regret that, by any imperfect expression of my meaning, I should have led your Lordships into any misapprehension.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Honourable
the Lords Commissioners of Her Majesty's Treasury.

No. 37.

Gentlemen, Office of Woods, &c., 19 January, 1854.

I AM now enabled to request that you will proceed to complete the sawing-machinery, &c. for Dean Forest, so that you may be able to erect it there about the first week of March next. I am happy to acquaint you that Mr. J. Brown is appointed to the situation of deputy-surveyor of Dean Forest; and, under his guidance, I anticipate satisfactory results from the use of the machinery which you are preparing.

I have to request that you will correspond with Mr. Brown on this subject a fortnight hence, in order that you and he may adjust the subordinate arrangements necessary for the objects in view, for the convenience and to the satisfaction of both parties. He will, in due time, inform you of the precise time at which he will enter upon his duties in the forest; and I think it desirable that no part of the machinery should reach the forest before Mr. Brown can give the necessary instructions as to where it may be most conveniently deposited, in the first instance.

I am, &c.
(signed) *T. F. Kennedy.*

Messrs. Clayton & Shuttleworth.

No. 38.

Sir, Lincoln, 21 January, 1854.

YOUR communication of the 19th instant is to hand, and we note its contents. We will now proceed to finish the sawing-machinery intended for Dean Forest, and have the same delivered by the first week in March next. Under the superintendence of Mr. Brown, we have no fear of the result. We will communicate with Mr. Brown, as requested, and take care no portion of the machinery is delivered at the forest, only under Mr. B.'s directions. In the meantime,

We are, &c.
(signed) *Clayton, Shuttleworth & Co.*

The Right Honourable T. F. Kennedy.

NEW FOREST.

MR. BROWN'S AND MR. CLUTTON'S REPORTS.

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New Forest.

Mr. Brown's and Mr. Clutton's Reports.

No. 1.

Sir, 8, Whitehall-place, 1 April, 1853.

I HAVE the honour to acknowledge the receipt of your letter of the 31st ultimo, enclosing copy of letter from Mr. Wilson, and various reports on New and Dean Forests.

I beg to request that I may be furnished with plans to which Mr. Brown's Reports refer.

I have, &c.

The Right Honourable T. F. Kennedy. (signed) *John Clutton.*

No. 2.

My Lords, Office of Woods, &c. 5 April, 1853.

I HAVE the honour to acknowledge the receipt of Mr. Wilson's letter of the 29th of March, with reference to certain reports of mine therein set forth, relating to the Forest of Dean and to the New Forest; and acquainting me that, "before my Lords undertake the responsi- "bility of deciding on the recommendations of Mr. Brown, with respect to the management "of the Crown plantations, it would be satisfactory to them to obtain the opinion of Mr. "Clutton, who has recently inspected the principal forests, under the orders of the late Board "of Woods, and must, therefore, be fully acquainted with their present condition;" and desiring, therefore, that I would refer Mr. Brown's reports to Mr. Clutton, and obtain, with as little delay as possible, a statement in detail of his views on the several suggestions contained therein.

I annex, for your Lordship's information, copy of a letter which, in obedience to the desire of your Lordships, I have addressed to Mr. Clutton; and I beg leave to state that, in order to save time as much as possible, which at this season in particular is of great importance, I think it will be desirable that, on receipt of Mr. Clutton's reports, I should at once transmit them to Mr. Brown for any observations he may have to make; and I will at once take that course, unless your Lordships should intimate to me your desire that I shall transmit them direct to your Lordships, before sending them to Mr. Brown.

I have, &c.

The Right Honourable the (signed) *T. F. Kennedy.*
Lords Commissioners of Her Majesty's Treasury.

No. 3.

Sir, Treasury Chambers, 14 April, 1853.

WITH reference to your letter of 5th instant, in regard to the course to be pursued, when you shall have received Mr. Clutton's reports in reference to the management of the Crown plantations, I am directed by the Lords Commissioners of Her Majesty's Treasury to acquaint you, that my Lords wish to have Mr. Clutton's reports transmitted to them, before any proceeding of the nature contemplated by you is taken, in order that their Lordships may give such directions in the matter as may appear to them to be proper.

I am, &c.

The Right Honourable T. F. Kennedy. (signed) *James Wilson.*

No. 4.

My Lords, Office of Woods, &c. 7 June, 1853.

I BEG leave to enclose, for your Lordships' information, a copy of a report by Mr. Brown, on the general subject of the New Forest, prepared in pursuance of the instructions which I had issued to him on the 11th of November last. This report I only received from Mr. Brown on the 12th of May, for, although he had prepared it at an earlier period, the pressure of his other avocations had prevented him from sooner checking his calculations, which, upon a subject of so much importance, he was desirous to do carefully, before finally transmitting the report to me.

This delay prevented the report being sent to your Lordships before your instructions were issued on the 29th March, to send Mr. Brown's other reports respecting the planting and nurseries to Mr. Clutton; but, I can entertain no doubt that your Lordships will be desirous that the report now sent, should be immediately placed in Mr. Clutton's hands, in order that the whole of Mr. Brown's views respecting the New Forest may be before him at the same time.

I am, &c.

The Right Honourable the (signed) *T. F. Kennedy.*
Lords Commissioners of Her Majesty's Treasury.

No. 5.

MEMORANDUM.

MR. BROWN'S Report of the 31st March, 1853, will be found in the Appendix to the Thirty-first Annual Report of the Commissioners of Woods, &c.

No. 6.

Sir, Treasury Chambers, 21 June, 1853.

WITH reference to your letter of the 7th instant, forwarding copy of a report from Mr. Brown, on the general subject of the New Forest, I am commanded by the Lords Commissioners of Her Majesty's Treasury to desire that the report in question may be referred without delay to Mr. Clutton, whose report on the said forest my Lords will be glad to receive at the earliest possible period.

I remain, &c.

The Right Honourable T. F. Kennedy. (signed) *James Wilson.*

No. 7.

Sir, 8, Whitehall-place, 21 June, 1853.

I HAVE the honour to return, herewith, the papers relating to the New Forest, which accompanied your instructions of the 31st March last, and which I retained when my report of the 28th ult., which related to Dean Forest only, was sent to you.

Report from the Commissioner of Woods, &c. to the Treasury, dated 14th January 1853, on the subject of the Inclosures and Plantations, with Appendices; viz.

No. 1 (*a*). Memorandum by the Commissioner, dated 31st December, 1852.
(*b*). Letter from Mr. Brown to the Commissioner, dated 28th November, 1852.
(*c*). Report from Mr. Brown to the Commissioner, dated 18th December, 1852.
(*d*). Letter from Mr. Bedford to Mr. Cumberbatch, dated 24th December, 1852.
(*e*). Report from Mr. Cumberbatch to the Commissioner, 28th December, 1852.
(*f*). Report from Mr. Cumberbatch to the Commissioner, 30th December, 1852.
(*g*). Letter from Mr. Bedford to Mr. Cumberbatch, dated 30th December, 1852.

No. 2. Letter from the Commissioner to Professor Lindley, dated 3d January, 1853.

No. 3. Report from Professor Lindley to the Commissioner, dated 10th January, 1853.

Report from the Commissioner to the Treasury, on the same subject, dated 20th January, 1853, with Appendices.

No. 1. Letter from Sir William Hooker to the Commissioner, dated 12th January, 1853.

No. 2. Report from Sir Joseph Paxton to the Commissioner, dated 12th January, 1853.

No. 3. Report from Mr. Cumberbatch to the Commissioner, dated 8th January, 1853, relative to Draining, &c.

No. 4. Report from Mr. Cumberbatch to the Commissioner, dated 8th January, 1853, as to Condition of Enclosures, &c.

No. 5. Letter from Mr. Bedford to Mr. Cumberbatch, 14th January, 1853.

No. 6. Letter from the Commissioner to Professor Lindley, 14th January, 1853.

No. 7. Report by Professor Lindley to Commissioner, 17th January, 1853.

No. 8. Letter from Commissioner to Mr. Brown, 17th January, 1853.

Report by the Commissioner to the Treasury, relative to Estimate for Works, Drains, and Ditches, dated 1st February, 1853, with Appendices.

No. 1. Letter from Mr. Cumberbatch to the Commissioner, dated 25th February, 1853, with

No. 2. Comparative Estimates.

No. 3. Memorandum on ditto, dated 29th January, 1853.

No. 4. Letter to Mr. Cumberbatch from Mr. Bedford, dated 1st February, 1853.

New Forest.

Mr. Brown's and Mr. Clutton's Reports.

Report by the Commissioner to the Treasury, relative to the Establishment of Nurseries, dated 4th March, 1853, with

No. 1. Report from Mr. Brown to the Commissioner, dated 25th February, 1853.

No. 2. Letter to Mr. Cumberbatch from Mr. Bedford, relative to condition, &c. of Nurseries, dated 30th December, 1852.

No. 3. Report from Mr. Cumberbatch to the Commissioner, with accompanying Statement, dated 15th January, 1853.

Before proceeding to state, in detail, my views upon Mr. Brown's Reports, with reference to the New Forest, there are two points which I beg leave to mention.

First. Mr. Brown states, "I beg to recommend, that not only the two inclosures of "Broadley and Frameheath, which are more particularly referred to in this report, but also "all the inclosures which may in future years be planted in the New Forest, should be "drained in every part, even where the land may appear dry, at distances from 40 to 50 "feet apart, according as the land to be operated upon may be retentive, or open, in the "subsoil."

This recommendation appears to me to be, if taken in its full extent, an extremely unwise and improvident one. I believe that, for the healthy growth of oak-timber, it is only necessary to make drains in places in which the water stagnates, or where it would, without such artificial drains, remain for a lengthened period.

Having examined Oakley and Parkhill inclosures, which have been drained in accordance with Mr. Brown's recommendation, I can state that a large unnecessary expenditure has been already incurred there. Some of the land is sand, requiring no draining, and a further portion of it is open in the subsoil, requiring very little draining.

If Mr. Brown's suggestions, to drain every part of inclosures to be made in future years, be carried out, I believe that a wasteful expenditure of a sum of at least 14,000*l.* will be the result. If the present plantations of oak did not grow, and grow very rapidly, it might be doubted whether ditching, in some form, might not be necessary for cleansing the soil; but, by far the greater part of the plantations grow very rapidly, and they are not drained except in particular places, where, for removal of surface or spring-water, draining was required.

I also believe that one of the results of the adoption, in this exposed forest, of the proposed system of draining would be that, when the oak-trees arrived at a large size, a considerable proportion of them would, for want of sufficient lateral roots, be blown down.

Secondly, as regards Mr. Brown's recommendations of the exclusion of Scots pines. He says, "I would therefore advise, as a highly-improved method of rearing oak, entirely to "exclude Scots pines, as nurses, from these inclosures, and to use larch alone for that pur-"pose. The former tree may indeed be used where decided shelter from a particularly-"exposed point is required, and may also, with great propriety, be planted on any knoll of "very poor land in an inclosure where the oak could not be expected to succeed profit-"ably."

I take the liberty of stating my doubts whether Mr. Brown's experience of the soil, climate, and situation of the New Forest, is such as to give great weight to this recommendation.

The proposition is far too broadly stated. There are a few situations in which larch may be usefully and with superior advantage employed as nurses; but experience has shown that, in the far greater portion of the plantations, the Scotch fir is the best nurse, and that young oak-trees cannot, in such situations, be reared with the best advantage without them. To abandon the use of the Scotch fir, to the extent recommended by Mr. Brown would, in my judgment, be wrong; as, from my knowledge of the localities which must be chosen for future plantations, as well as of those which are now in progress, I am confident that the Scotch fir is the only nurse that will efficiently protect the oak in its earlier stages from the wind and frost, from which it will be liable to suffer; and that the substitution of the larch for the Scotch fir, as recommended, will certainly lead (except in the few situations alluded to) to much loss and disappointment.

It will, I conceive, be useful on this part of the subject to refer to the following portions of the Fourth and Fifth Reports of the late Commissioners of Woods, Forests, and Land Revenues of the Crown, in which they allude to the plantations in the New, Dean, and other Royal Forests and Woodlands.

Extract from the Fourth Report, dated 6th May, 1823.

"For some years after the new plantations were first undertaken, their success in various "places appeared to have disappointed the expectations of many persons who had given "their attention to them, and who had probably formed their opinions without adverting to "its being peculiar to oaks, to make little or no progress, except in ground prepared by "trenching, for the first two or three years after they are planted, or keeping in view that, in "plantations so extensive, and of such variety of soil and exposure, there are many tracts "not equally adapted for the growth of oak, and which were necessarily included in the "new inclosures to avoid an extent of fencing that would have greatly added to the expense, "especially where fencing against deer was required."

"The lands not fit for oak have been, or are to be, planted with firs, and a mixture of any "other trees likely to succeed; but, in general, where the inclosures have been made for "eight or nine years and upwards, the present state of the oak-plantations is such as cannot "fail

" fail to afford the most satisfactory assurance of their ultimate success; and, when those " more recently planted, shall have arrived at the same age, we can have no doubt, from the " alterations and improvements in the modes of planting which experience has suggested " during the progress of the work, that they will be found to be at least equally " flourishing."

" The most material alteration in the mode of planting, and the only one we deem it " necessary here particularly to notice, in addition to those mentioned in our Second " Report, is the adoption of a mixture of firs, which, except in the most sheltered situations, " we have caused to be planted with the oaks for the last two or three years."

" When the new plantations were first undertaken, a great diversity of opinion was found " to exist amongst the numerous, and many of them most intelligent persons, owners and " growers of oak-woods and nurserymen, who were applied to by the late Surveyor-general " of Woods for their opinions, as to the expediency of mixing firs in plantations when the " principal object was oak. The majority of opinions received was against the practice; and, " there being at that time a strong prejudice amongst those who had their residences in or " near the forests against planting firs, on account of their supposed injury to the beauty of " the forest-scenery, they were made use of to a very limited extent, and only in situations " where little hope was entertained that oaks would succeed. In some of these spots, how- " ever, where oaks were mixed with the firs, even under the disadvantages of inferior soil, " such has been the benefit that they have derived from the warmth and shelter afforded by " the firs that, in almost all the cases, the oaks have so far outgrown their neighbours " (although in more favourable soils and exposure, but without the same protection), as to " leave no doubt whatever in our minds of the great benefit which will be derived by " generally mixing firs with the oaks in all future inclosures and plantations; but, in doing " so, the most watchful attention will be required to thin out the firs before they either " overgrow the oaks, or draw them up to a height disproportioned to the strength of the " stem, and such thinnings must be executed, in the first instance, without regard being had " to the value of the produce, which, for a few years, would probably not defray the " expenses."

Extract from Fifth Report, 1826.

" Our additional experience and observations have strongly confirmed our opinions of the " advantage of mixing firs with oaks, or even, in some situations, of planting only firs in the " first instance, and putting in a proper portion of oaks a few years afterwards, where the " firs have made sufficient progress to afford them warmth and shelter, a method which one " of the most extensive nurserymen and planters in the north of England informs us has " been adopted by him with the best success."

This method was, from that time, adopted by the late Board of Woods, and with the best success, for nothing can be more thriving than the plantations made just after the year 1826; and I am informed by old foremen and woodmen, who well remember the earlier plantations, and assisted in planting them that, when such earlier plantations were the same age as those made upon the improved plan adopted since 1826, they were not so good as the latter now are.

I have thought it expedient, on this subject of nurses, to ask the opinion of Mr. John Lee, of the firm of Messrs. Lee, of Hammersmith, who writes as follows:

" I beg leave to observe that, in my experience, I have always found the Scotch fir the " best nurse for oaks in all low situations, subject to late spring-frosts or early autumnal- " frosts, as it affords a much better shelter and protection than larch. The latter are very " good nurses, no doubt, in hilly situations, or on high ground not subject to frosts; but " I have not found them afford equal protection with the Scotch fir against those skimming " frosts which take the leaders of the oaks before they are sufficiently matured to withstand " it, and renders them what we term technically ' buzzly ' topped."

I entirely coincide with Mr. Lee's opinion; and, as the best oak-growing districts of the New Forest are subject to late spring-frosts and early autumnal-frosts, besides south-west winds, I strongly recommend that the Scotch fir should, to a great extent, be used as the nurse, in preference to the larch.

I now proceed to state my views of the suggestions contained in the three reports made by Mr. Brown respecting the New Forest; but I shall do so as shortly as the matter will admit, as I think the details would be more appropriately referred to the deputy-surveyor and the local officers, who are, I believe, fully competent to inform you upon any point of detail. Many of them have had a very long experience on the subject of the best mode of rearing oak-timber; and I respectfully submit, that their opinions are entitled to consideration.

As regards Mr. Brown's Report, dated 28th November, 1852, No. 1 (*b*), in which he says, " with regard to the young plantations, in my opinion, they are to a great extent very " inferior,"

I have already stated my opinion respecting these plantations in the Report to the late Board of Woods, dated 5th April, 1849, made by my firm and Mr. Neve, of Benenden, Kent, the agent of Mr. Law Hodges, Lord Beresford, Mr. Hussey and others in West Kent, and who has the management of a larger extent of woodland and oak-timber, I believe, than any other man in the south of England; namely, " that they are in a very good and " flourishing condition; that the lands comprised in those plantations are well adapted for " the growth of oak-timber. Some small portions are, of necessity, on poor lands; but, in " inclosing large tracts, it would be impossible to avoid this."

New Forest.

Mr. Brown's and Mr. Clutton's Reports.

"There is, upon the whole, a smaller proportion of plantations unthrifty than might have "been expected, showing, as we conceive, that great care was taken in the selection of the "land." Having made frequent visits to the forest since the date of the report above quoted, and having acquired an intimate knowledge of these plantations, I have had no reason to alter the opinion then given; and have only to add, that I observe a great improvement in the appearance of the plantations, from the judicious manner in which they have been thinned. I do not consider that they have been, in any respect, over-thinned for the growth of navy-timber. It is my belief, that any person acquainted with the growth of oak-timber in the south of England for the navy, would see that these plantations are good, and I cannot account for Mr. Brown's different opinion.

With regard to the planting in progress last autumn at Frameheath and Broadley inclosures, Mr. Brown remarks, that the plants used were of too large a size. They, no doubt, were so. I find from the deputy-surveyor, that there were some Scotch firs in the nurseries which had grown to a larger size than would, by choice, be planted out, which arose from the circumstance, that delay had taken place before the commencement of the plantations, but, as there was only a limited number of such larger plants, it was considered better to plant them out than to destroy them. There were no smaller Scotch fir-plants in the nurseries. There was no intention of continuing to plant fir of so large a size; nor has it been the practice before to do so.

As regards Mr. Brown's Report, dated 18th December, 1852, No. 1 (*c*), he says,

1st. As to the necessity of having the land thoroughly drained.

2d. As to the great advantages arising from a judicious choice of proper-sized healthy plants; and,

3d. As to the proper arrangement of the young trees over the ground, with a view to systematic thinning as the trees advance.

Mr. Brown recommends first, that all the inclosures which may be made in future years, should be drained in every part, at distances varying from 40 to 50 feet apart, three feet wide at the top, one foot wide at the bottom, and 30 inches deep in every part, according as the land to be operated upon may be retentive or open in the subsoil. I should not advise that this suggestion be adopted, as it would cause upon the land naturally dry, a wholly unnecessary expenditure; and, upon most of the land, a much greater expenditure than is necessary for rearing oak-timber to the best advantage.

It is necessary to relieve the land of superfluous water; and the question really is, to what extent this is required. Several of the persons engaged in the formation and rearing of the plantations made in compliance with the Act 48 Geo. 3, cap. 72 (1808), are in the forest, and some of them still in the service of the Crown. They have seen the result of all the various plans, both of planting and ditching in this forest, and, although no doubt many of the experiments (for at that period they were experiments) failed, they have obtained a most valuable stock of experience; and it would appear to me more prudent to act according to such experience, rather than upon the plan suggested.

I find that a considerable quantity of land has been drained, during the past winter, in Oakley and Park Hill inclosures, at 40 and 50 feet apart, and the drains are made, as nearly as possible, as recommended by Mr. Brown. Having examined the land so drained, I should not advise that any further portion should be treated in this manner; not only are the drains much closer than is necessary, but they are not of the form found by experience to be best adapted for draining in this forest.

Although only made since November last, they already require cleaning out, as the earth from their sides has crumbled in, filling up the bottom of the drains to a much greater extent than has been the case with those which were in previous years made in the form which had been found from experience to answer the best, namely, not so wide at the top, but wider at the bottom, and consequently with more upright sides.

Drains, with sloping sides, as recommended by Mr. Brown, have before been tried in the New Forest, and found not to answer; and although, in theory, it appears reasonable that the more the sides of the drain are sloped, the better they will stand; yet practically, in the New Forest soil and subsoil, it is not so.

Secondly, as to the judicious choice of proper-sized healthy plants.

This is unquestionably important.

Mr. Brown observes that, in all of the inclosures which have been planted in the New Forest since the year 1808, a great error has been committed in planting Scots pines, as nurses. I cannot agree in this opinion; as I have before shown, from the reports of the late Board of Woods, &c., that at first little or no Scotch fir was planted with the oak in the plantations, but the oak never prospered properly till the Scotch fir was more frequently introduced into those plantations, and got up well among the oak; and the result is, as fine a crop of oak as can anywhere be found, taking soil and climate into consideration.

The opinion expressed by the late Board of Woods, Forests, &c., in their Fourth Report, before referred to, in favour of the Scotch fir as the best nurse in this situation, has been fully confirmed by subsequent experience; and, although a certain quantity of larch has been planted in most of the plantations made since 1808, yet it was found that, in the lower ground, the Scotch fir, from not being deciduous, formed by far the best protection both against south-westerly winds and early spring and autumnal-frosts, from which the young oaks will always be liable to suffer in the New Forest. The climate of the district is peculiarly damp and humid. The objection of Professor Lindley to the Scotch fir as a nurse, namely, that it exposes such a surface and obstruction to the wind, is, in the case of the New

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Forest, its best qualification for the office of nurse and protector to the young oak against the south-west winds and the frosts.

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I am fully aware of the high authorities to whom this matter has been referred; and take the liberty of stating my conviction that, if the eminent persons referred to, had as intimate a knowledge of the New Forest, and had devoted as much time to the investigation of the history of the old and young plantations in it as I have done during the last four years, they would have arrived at the same conclusion with myself. Neither of the three gentlemen to whom Mr. Brown's Report was referred, appears to have much knowledge of this locality, which is a peculiar one. Sir Joseph Paxton states, "I have not the advantage of a local "knowledge of the soil and situation, which, in all cases of planting, is a very great advan- "tage, especially in giving an accurate opinion on many of the practical details which it is "necessary should be carried out."

Sir William Hooker states, "I regret to say that, in consequence of my want of experience "in planting on a large scale, and my almost entire ignorance of the locality in question, viz., "the New Forest, whether of the soil or climate, &c., my opinion cannot be of the smallest "value;" and Professor Lindley does not appear, from his letters, to have a very intimate knowledge of the forest.

In our Report of the 5th of April 1849, we recommended that a larger quantity of larch should be planted as nurses, but this was not intended to exclude the Scotch fir. Since that period, I have devoted much time to the investigation of all the circumstances bearing upon the growing of oak-timber in this forest; and, from the great difficulty in finding a sale for the thinnings of larch and Scotch fir (the quantity of which will now be increased by the passing of the Deer Removal Act, and the consequent inclosure and planting of 10,000 acres more), and I have come to the conclusion that, as few of either larch or Scotch fir as will effectually serve the purpose of nurses for the oak should be planted. The thinnings of oak are more valuable in this district than any other tree, the flittern bark commanding a high price for consumption in the large towns, and the oak-pole also sells more readily than other young trees.

I should, therefore, recommend that the proportion of half oak to half nurses hitherto adopted, should still be continued, instead of adopting Mr. Brown's plan, by which only one-fourth would be oak and three-fourths nurses, as, besides the advantage of there being always a sale for oak-bark and poles, which there is not always for larch and Scotch fir, there would also be a greater choice of oak-plants from which to select for the ultimate crop.

The larch should, in my opinion, be used on the higher portions of the inclosures, intermixed with Scotch fir; but, if the object contemplated by the various Acts of Parliament relating to this forest be carried out, viz., "for the growth and preservation of timber for "supply of His Majesty's said Navy Royal," in all the lower and best oak-growing districts of the forest, Scotch fir must be extensively employed as the nurse.

To exclude the Scotch fir, and substitute the larch, as a nurse, to the extent recommended by Mr. Brown, would be unwise. The greater part of the forest is much exposed to the south-west winds blowing directly off the sea, and to cold damp air and frosts during a great portion of the year, and even in the early part of summer. Of the effects of frost I have, on my recent survey, had proof, having seen the young oak-shoots and leaves in some parts of the forest blackened and killed by the frost.

Thirdly, as to the proper arrangement of the young trees over the ground, with a view to systematic thinning.

The plan proposed by Mr. Brown, as to the distance from plant to plant, is so little different from that hitherto followed, that I see no objection to its adoption. It is merely a question as to whether the plants should be four feet, or four feet six inches, apart. I think it is of no great consequence to the ultimate crop, whether the second row is half of oak and half nurses, or entirely of nurses, as the alternate plant, whether a nurse or an oak, would be cut out as thinnings, in a few years; and therefore, I should recommend that the plant which will be of the most value at the time of thinning should be planted. In the New Forest, experience has shown that the produce of the oak is always saleable; whereas, the produce of larch or Scotch fir-thinnings, of the size which it would have attained at the time of thinning, is not so. But, upon the relative value of the thinnings of larch, Scotch, and oak, I believe the deputy-surveyor would be able to give the most practical opinion, as he is daily disposing of the produce now being cut in the forest.

As regards the estimate for inclosing, planting, &c., I think Mr. Brown's amounts will be sufficient, except that the estimated amount for draining, and spreading stuff taken from drains, is too low, if Mr. Brown's system of draining be adopted.

As regards Mr. Brown's Report of the 25th of February 1853, Appendix No. 1, respecting the establishment of nurseries in the New Forest, and his remarks upon those in existence, I beg to say that, although the existing nurseries may have been sufficient when the Crown had the right to keep inclosed only 6,000 acres of land, and consequently, required to plant at a much slower rate, yet, now that the passing of the Deer Removal Act has given the Crown a right to keep an additional quantity of 10,000 acres inclosed, such existing nurseries will not be sufficient; and it would be advisable to select three or four pieces of land, conveniently situated in different parts of the forest, and to devote them wholly to nurseries; and, in due time, to abandon the present nurseries, which were never intended to be permanent, and upon which plants have been left, with a view to their becoming part of the plantation, when abandoned as nurses.

I think that Mr. Brown's suggestions respecting the nurseries are generally good. It would be desirable to obtain the services of a working-nurseryman, well accustomed to the management of larch, Scotch fir, and the raising of oak, who should have the charge of these

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nurseries, under the direction of the deputy-surveyor. I should not advise that an attempt be made to raise larch from seed in the New Forest; but I should recommend that the course found to be the most profitable by the principal nurserymen in the south of England should be followed, namely, to procure seedlings from Scotland, where the damper climate enables nurserymen to raise them with great success. Scotch fir-seedlings can also be purchased much cheaper than they can be raised in the New Forest, and would afford a more certain supply of plants.

With respect to Mr. Brown's remarks upon the existing nurseries, they appear to me to imply neglect on the part of the officers of the forest, and they would, I think, be more properly replied to by such officers than by me; but I deem it just towards the forest officers to state, that all the nurseries which I have seen are regularly dug, and are as clean as could be wished; they are under the immediate care of the woodmen of the inclosures in which they are situated; they are drained with open ditches, where required, but are generally situated on dry land; the plants are in a healthy state, and those at Linford Nursery, to which Mr. Brown alludes as being only nine inches high at five years old, were a few cut off by hares; but the height is from nine to 36 inches, and the height was so shown in the return sent to Mr. Brown. The plants generally, so far from being inferior, were fit to have been planted out last autumn or winter. I am informed that they were growing so luxuriantly that the deputy-surveyor was compelled this spring to check them, or, by next autumn, they would have been too large to plant out with safety. As these nurseries were, with the exception of the one at Bolderwood, fresh ground used for the first time, and would, in the ordinary course, only be occupied as nurseries for a few years, the rotation of crops and application of manure do not seem to me to be requisite. The nurseries are situated within inclosures that will have to be planted, the object being that the plants might be as short a time as possible out of the ground, and that there might be no expense of carriage; although, I do not think that the cost of carriage should deter you from concentrating the more extensive nurseries now proposed.

With respect to the latter part of the Report now under consideration, in which Mr. Brown advises that the plantations should be planted gradually, instead of first draining 2,000 or 3,000 acres, and then making an effort to plant them, I think it decidedly the best plan to plant gradually, and to plant out all plants, as they become fit, from the existing nurseries.

There are now several inclosures completed waiting to be planted, and, although experience has shown that the young oak sooner makes progress when planted amongst Scotch firs which have been planted two or three years previously, I should recommend, with the present large stock of young oaks fit to be planted next autumn, that sufficient nurses should be purchased to proceed with the planting at the earliest period.

I do not find that the deputy-surveyor in the New Forest has received instructions to propose any scheme for the gradual and regular planting of the inclosures sanctioned by the various Acts of the Legislature. Although Mr. Cumberbatch's appointment dates only from 1849, he has availed himself of the ample opportunity he has had of acquiring a knowledge of the peculiarities of the soil and climate of this forest, of which he previously had some knowledge, and his foremen and woodmen have had a very large experience in the varied operations of planting, &c., and they are, I believe, fully competent to carry out any reasonable instructions given to them.

Mr. Brown remarks on the grey lichen, "that it is never found thus attacking young trees, "at least to any considerable extent, except in cases where the trees are growing in a soil "overcharged with moisture;" but Sir Joseph Paxton says, the lichens "also grow "abundantly on badly-thinned plantations on very poor sandy lands."

The fact being, that they grow on trees in the New Forest standing on dry sandy land within the several plantations where there is no water in the soil, and where Mr. Brown states they are overthinned. The grey lichen grows on trees of all ages in the New Forest, and, in many parts of it, on the most thriving young trees; of this I have had proof, by examining the butts of young trees which had been felled, and satisfying myself of the rapidity with which they grew, though the bark was covered with lichen.

I have, &c.

The Right Honourable T. F. Kennedy. (signed) *John Clutton.*

No. 8.

Sir, Office of Woods, &c., 22 June, 1853.

I HAVE this day received a letter written by command of the Lords Commissioners of Her Majesty's Treasury, of which a copy is annexed, directing me to transmit to you the enclosed copy of a report by Mr. Brown, on the subject of the New Forest, to which I adverted in my letter to you of the 8th instant.

I am, &c.

J. Clutton, Esq. (signed) *T. F. Kennedy.*

No. 9.

My Lords, Office of Woods, &c., 24 June, 1853.

I BEG leave to enclose, for your Lordships' information, copy of a report, dated 21st June, which I yesterday received from Mr. Clutton, on the subject of Mr. Brown's Reports relating to planting and nurseries in the New Forest, in conformity with the instructions received from your Lordships, to transmit to Mr. Clutton Mr. Brown's Reports, with the relative papers, which are herewith returned to your Lordships, per schedule, included in Mr. Clutton's Report.

In conformity with your Lordships' instructions of the 21st June, I immediately transmitted to Mr. Clutton Mr. Brown's Report on the general subject of the New Forest, on which he will, no doubt, report his observations as soon as it may be in his power.

I have, &c.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury. (signed) *T. F. Kennedy.*

No. 10.

Sir, 8, Whitehall-place, 24 June, 1853.

I HAVE the honour to acknowledge the receipt of your letter of the 22d instant, with copy letter to you, written by command of the Lords Commissioners of Her Majesty's Treasury, directing you to transmit to me a copy of a report by Mr. Brown, on the general subject of the New Forest, to which you adverted in your letter to me of the 8th instant.

Your letter of the 22d was not delivered here till after five o'clock, my Report on the New Forest having been previously sent to you.

From the terms of your letter of the 8th instant, I was not quite certain that a further report by Mr. Brown would be sent to me; and I considered it my duty to send you my own report so soon as it was completed, having been made aware of the wish of the Lords of the Treasury that it should be furnished to their Lordships with the least possible delay.

I have now respectfully to request that you will inform me whether it is still their Lordships' desire that I shall report on the New Forest, with reference to the report by Mr. Brown, a copy of which was enclosed in your letter to me of the 22d instant.

I have, &c.

The Right Honourable T. F. Kennedy. (signed) *John Clutton.*

No. 11.

Sir, Office of Woods, &c., 25 June, 1853.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests to state, in reply to your letter of the 24th instant that, when he wrote to you on the 8th instant, mentioning a further report from Mr. Brown, the Commissioner expected to have been immediately instructed by the Lords Commissioners of Her Majesty's Treasury to transmit the same to you; but, such instructions not having reached him until the 22d instant, he was not in a position sooner to forward to you the report in question.

The Commissioner apprehends that you have done exactly what was most proper in transmiting to him without delay your report dated the 21st instant on Mr. Brown's previous reports; and he apprehends that it is the wish of the Lords Commissioners of Her Majesty's Treasury, that you should now prepare a further report on the report of Mr. Brown, transmitted with the Commissioner's letter of the 22d instant, and that with as little delay as may be consistent with your convenience.

I am, &c.

John Clutton, Esq. (signed) *Geo. Sale Bedford.*

No. 12.

Sir, Office of Woods, &c., 20 July, 1853.

I NOW transmit for your information copy of a report which has been received from Mr. Clutton, on the subject of your reports, dated respectively the 28th of November and the 18th of December 1852, and 25th February 1853, on the subject of the recent plantations and the establishment of nurseries in the New Forest; and I have to request that you will furnish me with such observations on the same as it may be your wish to make.

I am, &c.

Mr. James Brown. (signed) *T. F. Kennedy.*

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No. 13.

My Lords, Office of Woods, &c., 21 July, 1853.

I BEG leave to acquaint your Lordships that, in obedience to your instructions, I transmitted to Mr. Clutton Mr. Brown's Report on the present state of the woods and plantations in the New Forest, with suggestions for their future management, bearing date the 31st March, 1853. I have not yet received Mr. Clutton's Report on the same; but, as soon as it shall reach me, a copy shall be transmitted for the information of your Lordships.

I further beg leave to state to your Lordships, with reference to Mr. Brown's Reports of the 28th November and 18th December 1852, and 25th of February 1853, on the subject of the recent plantations, and the establishment of nurseries in the New Forest, and Mr. Clutton's Report on the same, bearing date the 21st June 1853, that I transmitted a copy of the same to Mr. Brown, in order that he might have it in his power to make such observations as he might wish, and that so soon as I receive Mr. Brown's reply I shall transmit a copy thereof to your Lordships.

I have, &c.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury. (signed) *T. F. Kennedy.*

No. 14.

Sir, 8, Whitehall-place, 16 August, 1853.

IN obedience to your instructions of the 22d June, and in accordance with the desire expressed in your letter of the 25th of the same month, I now proceed to lay before you such remarks as I have to offer on Mr. Brown's Report upon the New Forest, dated 31st March 1853, which was referred to me by desire of the Lords Commissioners of Her Majesty's Treasury.

Mr. Brown divides his Report into five heads, viz.,

I. His opinion as to the present condition of the woods and plantations.

II. As to the system of management which should be adopted for their future improvement.

III. As to the introduction of a sawing-power, with steam-machinery, for the conversion and manufacture of all timber, except that suitable for the Royal Navy, and such other timber as may be too large for the circular saw.

IV. As to the annual value which may, under good management, be realized from the plantations in the New Forest; and,

V. Regarding the establishment which should be maintained for conducting, with all due economy, the affairs of these woodlands.

Before proceeding further, I must call attention to a general consideration which appears to have escaped Mr. Brown's notice. There are in the forest 66,000 acres of land, made up as follows, viz.

	Acres.
Old timber in the open forest, about	8,500
Old plantations of King William, &c.	2,400
Plantations made between 1808 and 1850	7,200
New Park, and other freeholds of the Crown	2,300
Total in the occupation of the Crown	20,400
Leaving as waste, and unproductive to the Crown	45,600
	66,000

By the New Forest Deer Removal Act, now being carried out, the Crown gives up the right to keep deer therein, and obtains, in lieu, the right to inclose		10,000
The Crown has a right to inclose, under the Acts of 9 & 10 Will. 3, and Geo. 3, cap. 72		6,000
		16,000
	Acres.	
There are now inclosed and planted	1,950	
Inclosed, but not planted	2,413	
		4,363
Leaving still uninclosed		11,637

Timber,

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Timber, and the thinnings of plantations, being the only important sources of revenue to the Crown from this forest, it is evident that none can be derived from the open portion of it, comprising 45,600 acres of land uncovered with timber, nor from that portion of the inclosed, or planted land, which has not been in that state for a sufficient period to be productive. The planted land comprises, in round numbers, 20,000 acres. This land should, by cutting timber and thinnings, be made to produce an income of about 8,000 *l.* or 10,000 *l.* per annum. If more than this be taken from the forest, a permanent income will not be maintained; but a steady return may be derived for some years, if the cutting be limited to the amount above stated. The Deer Removal Act, which passed in 1851, will materially reduce the expenses of management. It must not, however, be overlooked, that an establishment has to be supported for the management and protection of 66,000 acres of land, while there are only 20,000 acres in the occupation of the Crown, from which any produce can be obtained for some years to come. In fact, less than one-third of the property is at present carrying a crop for the benefit of the Crown; and two-thirds are open for the benefit of the commoners. Assuming each acre to be of equal value, it would follow that the Crown is at present in possession of only one-third of the land in the forest. The land is not, however, all of equal value. That selected and planted being considerably better than the average, I am desirous of pointing out that the Crown does not, and cannot, derive at the present time, any material revenue from the open and untimbered land, but, on the contrary, that the said land is a burden to the Crown (as respects the establishment) for the benefit of the commoners.

Parliament having decided that the deer should be destroyed, it becomes a question whether the Crown should not be relieved from this charge, by partitioning the forest between the Crown and the commoners, as in the case of Hainault, &c.; but, upon this point, another grave consideration arises. In Hainault, the Crown was enabled to obtain a very large allotment, in consideration of the large crop of timber standing on the land to be dealt with; but, it must be borne in mind that, in cases of inclosure, whether of commons or forests, the owner of the soil is not only compensated for the right to grow timber, but also for the quantity of land already in the occupation of the lord of the soil with a crop of timber.

In short, upon the open and untimbered portion of the land in this forest, the Crown would not, in the event of a general inclosure, be entitled to more than one-sixteenth, in respect of its right of soil; such being the largest proportion usually taken by a lord of a manor, where there is no timber. But, if the land were covered with timber, the Crown's rights might, and would probably, rise to as much as a half, or even two-thirds. It consequently becomes a matter of grave importance that the forest should not be denuded of its timber, but, if the large falls now being annually made are continued, the rights of the Crown, in the event of a general inclosure, would be seriously curtailed, to say nothing of the loss in price which would be sustained from having such a large quantity brought into the market at once. I am quite aware that this is not touched upon in Mr. Brown's Reports; but, as the Deer Removal Act has materially altered the relative position of parties, since we reported in 1849, I feel bound to mention it, on account of its great importance to the interests of the Crown at the present time.

I. Mr. Brown first reports as to the present condition of the woods and plantations in the New Forest, and states:

"As these are of various ages, from 150 years down to one year, I propose, in referring to "them, to divide them into three classes, according to their respective ages, thus:

"Firstly. Old woods which were planted between the years 1700 and 1775.

"Secondly. Inclosures which have been planted between the years 1808 and 1830.

"Thirdly. Young plantations at, and under, 10 years of age."

Firstly. The first of these classes embraces in all 2,460A. 0R. 12P., and consists of the following inclosures:

When Inclosed and Planted	Names of Inclosures.	Extent. A.	R.	P.	When thrown open.	——
1700	Puck Pitts - - -					
	South Bentley - -					
	North Bentley - -					
	Prior's Acre - -	1,022	0	0	Not known	- - Known as the King William Plantations.
	Burley Old - -					
	Rhinefield Old - -					
	Woodfidley - - -					
1756	Etherise - - -	102	2	0	Not known	Phillipson's Plantations.
	Black Bush - -	33	3	8	"	
	Pignal Old - -	94	0	22	"	

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When Inclosed and Planted.	Names of Inclosures.	Extent. A.	R.	P.	When thrown open.	
1775	Furzy Lawn - -	78	2	38	1829	Pitt's Plantations.
	Ocknell - - -	248	1	1	"	
	Pitt's - - - -	121	1	18	"	
	Sloden - - -	249	2	31	"	
	Raven's Nest - -	74	2	27	"	
	Coppice of Linwood -	289	0	27	"	
	Long Beech Hill -	145	3	0	1808	
		2,460	0	12		

Mr. Brown proceeds:

"The crop on these several portions of the forest consists of oak chiefly, with a partial "intermixture of beech; the soil is, for the greater part, either a clay loam, or sandy loam, "with occasional rising knolls of gravelly soil, and the greater extent of the ground is wet, "and does not appear ever to have been drained."

Mr. Brown then states his opinion as to the present condition of these woods and plantations, the timber in which, he states, "is generally of a tall and drawn-up character, and "evidently has never been attended to, and thinned; and, in consequence of this neglect, "together with the natural wetness of the soil, much of it is comparatively inferior, both in "size and quality, and a considerable portion of it is in a state of decay. Another cause of "the comparative inferiority of the old timber in these woods is, that there has of late been "carried on a very injudicious system of felling, from time to time, in all parts indiscrimi-"nately without reserve, large quantities of the best of the timber, as well as such trees as "were considered defective; and from the trees left, after these cuttings down, having for-"merly stood in an extremely confined state, and very close one to another, since they have "been thus irregularly opened up, they have become generally unhealthy, and are, for the "greater part, becoming what is called 'shaky' in their timber, and fast deteriorating in "value;" and he recommends that "the trees should not be picked out here and there, as has "hitherto been the practice, but that a given extent of ground should be annually cleared "and replanted in a decided and systematic manner."

An inquiry into the history of the oldest of these woods will show that, up to the year 1798, they were not properly attended to or thinned; but the statement that such has never been the case, appears scarcely correct.

I find in the Minutes of a meeting of the Commissioners (appointed under the Act 9 & 10 Will. 3, c. 36, for inclosing 1,022 acres of the New Forest), holden on the 14th day of April 1808, that Lord Glenbervie laid before the Commissioners a statement respecting these woods, in which the following appears:

"I think I can venture to say, from a good deal of information and observation respecting "even those plantations of King William that, within the last 10 years, when, for the first "time, a regular plan of thinning them was established, and which seems to me to have been "judiciously executed ever since, the oaks there, which had been drawn up to slender shafts "from their too great proximity, have, even at so great a distance of time from their being "planted, begun to swell considerably in circumference, and may yet be expected, at no very "distant period, to furnish a valuable supply of timber for the navy." And, in the office at New Park, is the following letter from the Office of Woods to Mr. Turner, the then deputy-surveyor of the New Forest:

"Sir, "24 September, 1811.

"Lord Glenbervie, and the other Commissioners of His Majesty's Woods, direct that you "will, about the same time when you shall have to set out the timber to be felled for the "navy in the ensuing season, examine such of King William's and Pitt's inclosures as stand "most in need of thinning, and which can be conveniently thinned next spring; marking "the trees to be taken down with red paint; and, when the service is finished, you will "acquaint the Board therewith, and with your conjecture of the money which such thinnings "and the bark are likely to sell for; and this course you will pursue, in succession, annually, "through the remainder of King William's and Pitt's inclosures, so as that they may be "repeatedly thinned, in regular rotation. During the thinning, barking, and removing the "thinnings, as much care as possible must be taken not to injure any of the trees which are "left standing.

"When the thinnings of the year come to be cut, barked, and sold, you will transmit an "account of the produce of the whole, and of the expenses incurred therein.

"I am, &c.

"Mr. Turner." (signed) "*A. Milne.*"

These woods have, from time to time, since the dates of the foregoing papers, been thinned; and, such has been the consequent improvement, that a large quantity of navy-timber has been

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been cut from them; and, at the present moment, many hundred loads of fine navy-timber are lying cut ready for the inspection of the Admiralty purveyor in the woods called Prior's Acre, Woodfidley, and Burley Old.

I entirely coincide in Mr. Brown's opinion, that "there has of late been carried on a very "injudicious system of felling from time to time in all parts indiscriminately, without reserve, "large quantities of the best of the timber."

In the Report of 5th April 1849, signed by my firm and Mr. Neve, we say,

"We should recommend, in any future cuttings of old timber in the open forest, that "considerable spaces should be cleared, and that the fall should be confined to one or two "walks, at most; first, because, when timber has arrived at maturity, it will not bear the "exposure consequent upon the picking out of a portion of the crop; those trees left "standing invariably become 'stagheaded,' and decay prematurely. We have frequently seen "trees, previously thriving and flourishing, at once cease to grow when so treated, and become "stagheaded, and fall to decay. Secondly, because the labours of the officers are much "reduced, consequently, their time is more profitably occupied in their calling. Thirdly, the "principal officers can much more efficiently check, or prevent, any depredations, if the timber "is felled in one portion of the forest at one period. Fourthly, the purchaser would give an "increased price for the timber, as it would reduce his expenses, the work lying together: "and, inasmuch as the land now covered with timber is, for the most part, the best land in "the forest, we should recommend that the sites so cleared should be replanted."

In the years 1850 and 1851, our recommendation was, by the advice of the present deputy-surveyor, adopted by the late Board of Woods, &c., and the best of the timber from the sites so cleared was selected for the use of the navy. The inferior was sold, and has all been removed for some time past. The land is now ready to replant, and a portion of it forms a part of that which has been already selected by the Commission of 1851 for inclosing and planting. This, I conceive, was the right mode of proceeding.

Since the latter year, the attempt has been made to supply too large a fixed quantity of navy-timber in each year; and, as the rejections of the purveyor are very large, if all the inferior, or second-class timber, standing amongst the trees directed to be marked for the navy had been felled, a sale could not have been found for it, except at considerable abatement from its value.

Much of the timber in every wood is, either from defects or from insufficient size, not suitable for the purposes of the navy. I find there is now lying cut in the forest about 3,000 loads of rejected navy and inferior timber for sale. It was found by the deputy-surveyor impracticable to cut down a greater quantity of inferior timber this year, as an order was received to cut such a quantity of navy-timber as would produce 2,000 loads, such as could be accepted by the purveyor. Mr. Martin, of Lloyd's Registry, and Mr. Freebridge, the navy-purveyor, at a conference directed to take place with the deputy-surveyor, advised what class of trees should be selected, and were of opinion that it would be necessary to cut 4,500 loads, square measure, in order to furnish 2,000 loads such as Mr. Freebridge might accept, leaving 2,500 loads to be rejected as unfit for that purpose. There is, therefore, at this time, on the forest about 5,500 loads of sale timber, which will have to be sold to private parties. Nearly all the forest has necessarily been picked over to furnish the large quantity of navy-timber directed to be found, with a sufficient proportion of that particular class of timber, called "thickstuff," which was desired. The inferior timber intermixed with the navy-timber over so large a space, it would, as before stated, have been impossible prudently to fell in one year; and, therefore, our recommendation, of which Mr. Brown approves, cannot be carried out, unless the system respecting navy-timber be altered. Being fully impressed with the improvidence of selecting all the best timber from every wood previously to the entire clearance of the whole of any district in the forest, I beg most respectfully to suggest that, in future, the plan adopted by the late Board of Woods, in their first fall of timber for the navy after 1849, should be resumed, and that no more navy-timber should be supplied in any one year than is found standing on such parts of the forest as it may be desirable wholly to clear, and the quantity should be regulated by the probable demand for sale timber, as well as by the amount of stock on hand, rather than by first fixing the quantity of navy-timber that shall be supplied, or determining the extent of land that shall be cleared, and felling accordingly. No doubt, the course lately adopted shows the forest as making a large present income, but this can last only for a few years. The forest will, if the present system be pursued, very soon be denuded of its best, or navy-timber; and the trees, left standing, will be damaged by the exposure consequent on the removal of the others.

I observe that Mr. Brown also coincides with the recommendation contained in our report before referred to, that the beech, as well as the oak, in the old woods should be cleared off the ground, and the land replanted. I have, therefore, no remark to make upon this portion of the subject, except to explain that, in our report, we did not propose wholly to denude the forest of its old timber; and I now recommend that in all cases a sufficient number of both oak and beech trees should be left in prominent positions, so as not to wholly lay bare and disfigure the property, which would seriously diminish its value as an estate, to whatever use it may be hereafter applied.

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The foregoing remarks apply to the 8,500 acres of open forest, now covered with oak and beech, and the following woods, known as "King William's" and "Phillipson's" plantations.

King William's Plantations:	Phillipson's Plantations:
Woodfidley.	Etherise.
Puck Pits.	Blackbush.
Burley Old.	Pignal Old.
Rhinefield Old.	

I do not consider it expedient, at present, wholly to clear North and South Bentley. I think it a matter of regret that the best timber should have been picked out of these woods this spring, and that Prior's Acre should have been cut down, although in a much more growing state than other woods in the forest; but the quantity of "thickstuff" required, could not be found without it.

With reference to the following, known as "Pitt's Plantations," and called Furzey Lawn, Ocknell, Pitt's, Sloden, Raven's Nest, Coppice of Linwood, and Long Beech Hill, I recommend that they should not be wholly cleared away, as proposed by Mr. Brown. They were planted so lately as 1775, and have not as yet arrived at maturity.

Although these plantations do not grow rapidly, they still make some progress, and as there is much land wholly bare, or covered with ripe inferior timber, it appears to me very unwise to cut anything which is not in a state of deterioration; and, if there were no other reason, it would, I submit, be sufficient, that (for the reason already given) the existence of the timber retains this land in the occupation of the Crown.

Secondly. "As to the inclosures which have been planted between the years 1808 and "1830."

This class of plantations embraces in all 6,310A. 3R. 25P., divided into 41 inclosures, as shown in the following Tabular Statement:

When Inclosed and Planted.	Names of Inclosures.	Extent. A.	R.	P.	When thrown open.	Remaining Inclosed. A.	R.	P.
1808	Hurst Hill	180	3	27	1851	—		
„	Wotton	410	1	1	„	—		
„	Holly Hatch	149	2	3	„	—		
„	New Coppice	281	1	9	„	—		
1809	Broomey	225	1	24	„	—		
„	Wilverley	500	0	0	1846	—		
„	Rhinefield Sandys	224	1	29	1843	—		
„	Aldridge Hill	127	2	27	„	—		
„	Stockley	131	0	14	1851	—		
1810	God's Hill Wood	384	1	39	„	—		
„	Burley, New	330	2	37	„	—		
„	Lodge Hill	138	0	14	„	—		
„	Church Place	177	1	24	„	—		
„	Norley Wood	163	0	20	1843	—		
1811	Holmsley	345	0	9	1851	—		
„	Anderwood	168	3	30	„	—		
„	Roe	342	0	11	„	—		
„	Setthorns	318	2	9	„	—		
„	Holliday Hill	163	3	20	- -	163	3	20
„	Northerwood	16	2	37	- -	16	2	37
1817	Amberwood	213	3	20	1851	—		
„	Holmhill	285	0	20	„	—		
„	Ramnor	107	0	2	- -	107	0	2
„	King's Coppice	158	3	38	1851	—		
„	Shepherd's Copse	12	1	36	- -	12	1	36
„	Barley	0	0	38	- -	0	0	38
1829	Folds Gates Hill	21	3	15	- -	21	3	15
„	Stubby Copse	111	2	14	- -	111	2	14
„	Wooson's Hill	84	1	25	- -	84	1	25
„	Bramshaw Wood	63	1	2	- -	63	1	2
„	Costicles	45	0	30	- -	45	0	30

When Inclosed and Planted.	Names of Inclosures.	Extent.			When thrown open.	Remaining Inclosed.		
		A.	R.	P.		A.	R.	P.
1830	Black Knowl - - -	6	2	22	- -	6	2	22
„	Ober Corner - - -	5	2	36	- -	5	2	36
„	Fletcher's Hill - - -	73	2	1	- -	73	2	1
„	Ivy Wood - - - -	20	0	22	- -	20	0	22
„	Ramnor, New - - -	30	1	15	- -	30	1	15
„	Appleslade - - - -	86	2	28	- -	86	2	28
„	Little Holm Hill - - -	38	2	33	- -	38	2	33
„	Bratley - - - -	46	0	34	- -	46	0	34
„	Backley - - - -	42	0	2	- -	42	0	2
„	Beech Bed - - - -	77	1	8	- -	77	1	8
		6,310	3	25		1,053	3	20

Some general remarks will apply to all these plantations.

1st. As regards additional drains, stated by Mr. Brown to be required, I have, in my Report of the 22d June last, stated fully my reasons for objecting to the outlay proposed by Mr. Brown for the new inclosures. I believe the plantations now under consideration are, for all practical or beneficial purposes for the growth of oak-timber, amply drained, and that any outlay, in additional drainage, would be money wasted. Land to grow good navy oak-timber does not require to be drained, as suggested by Mr. Brown.

2d. Mr. Brown states that the trees are, generally speaking, comparatively small for their age. This, in my judgment, is not the case. The earliest inclosures were planted (like those in the Forest of Dean) with acorns, a five-year-old oak having been put in every tenth hole. In 1810, the acorns having been found to have failed, the spaces were subsequently filled up with seedling oaks. It follows, therefore, that the first planting with acorns was, to the extent of about 80 per cent., a failure; and this will account for the average diameter of the oaks, as stated by Mr. Brown, being less than it would otherwise have been; nevertheless, the young trees are very good, taking into consideration the soil and climate.

3d. Mr. Brown states that, in well-managed oak plantations, of 40 years' standing, there should be only 200 trees per acre.

To cut out all oaks until there should remain only 200 per acre upon the whole of a plantation, simply because it is 40 years old, though varied in its soil, its aspect, its original and subsequent treatment, its exposure to winds and frosts, and the consequent inequality in the growth and size of the trees, would indeed be thinning by theory; and such a practice I cannot describe better than in Mr. Brown's own words, in the 338th and 339th pages of the second edition of the book called the "Forester," written by that gentleman, and dated 1851, from which I take the following extract:

"All theoretical men who have had little practical experience to form their judgment, "with regard to thinning young plantations, maintain that, at a certain age of a plantation, "a certain number of trees ought to be cut away from each hardwood plant, thus reducing "practical forestry to a few rules of practical geometry. This theory sounds all very well "in the ears of other inexperienced men, but, when reduced into practice, it proves an utter "absurdity.

"Plants are, like animals, often found to die suddenly, and that, too, without our being "able to give a reason for it; besides, nothing is more true than that all trees of the wood "do not grow alike; and, seeing this, we must in the case of thinning judge for ourselves, "and from practical experience choose which should stand, and which should come out."

4th. Mr. Brown says, "the oak-trees in all the plantations of the New Forest have been "planted in lines eight feet, one line from another, and four feet from plant to plant in the "lines; and the pine-nurses have been planted in lines alternately with them, four feet from "the oaks on each side."

In this Mr. Brown is, I think, mistaken, as until 1826, no pines were planted as nurses; a few Scotch firs were planted, as belts, in the poor spots of each plantation, and also some at intervals, but not, as described, "as nurses." The plan generally adopted up to that date was to plant Scotch fir in every fifth hole in every third row (*i. e.*, 20 feet by 12 feet apart), consequently, the firs were not planted in the manner Mr. Brown supposes, but were so far apart that they could not possibly draw up the oaks too much. The following remark can scarcely be correct, namely that, "in looking over the plantations in this forest, which have "been made since 1808, it is at once evident, from the generally drawn-up character of the "oak-trees which now constitute the great body of the crop that, till within the last four or "five years, they had been left in an extremely confined state among their nurses, and that "their healthy and full developement has been greatly arrested in consequence."

It is, I think, a matter of regret that Mr. Brown should have condemned all the past proceedings with respect to these plantations without remaining long enough in the forest to inform himself on the subject.

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It is, however, known that he only spent six days in riding through the 66,000 acres in the New Forest, some of the plantations being nearly 20 miles apart. The weather being incessantly wet, and the whole country flooded at the time, it was not possible for him to walk and examine the plantations, even if he had devoted to it sufficient time.

As my observations, in detail, upon the plantations made between 1808 and 1830, specially reported upon by Mr. Brown, must of necessity extend to some considerable length, I have placed them in an Appendix to this Report.

Thirdly. The young plantations at, and under, 10 years of age. These extend, in all, to 718A. 1R. 36P., and are divided into 11 inclosures, as shown in the following Table:

When Inclosed and Planted.	NAMES OF INCLOSURES.	Extent all Inclosed. A.	R.	P.
1843	Buckford	37	3	36
	Clumber	48	1	28
	Ferny Knopp	21	0	28
	Stubby Copse added	132	0	5
	King's Hat	65	3	17
	Foxhunting	56	1	32
	Little ditto	33	0	10
1846	Pignall Hill	29	3	18
	Hasley	90	1	14
	Linford Great	140	3	2
	Linford Small	62	2	6
	A.	718	1	36

Buckford.

This is very subject to frost, and, until the Scotch firs got up a considerable height above the oaks, the latter made no progress. Now, however, many parts are growing very fast, and I think, in a few years, it will be seen that there are few parts which it would be necessary to devote, as Mr. Brown proposes, wholly to fir, on account of its "lightness and "poverty." It is, in my opinion, sufficiently drained in all parts requiring draining, and, therefore, I should not recommend any further outlay on this account.

Pignall Hill.

I do not consider, as Mr. Brown does, that the trees are unhealthy from want of drainage, and, therefore, should not advise further outlay in drains. The true cause of the oaks not having hitherto grown so fast as could be wished, is, that they were planted too soon after the Scotch fir nurses, and before the latter had got to a sufficient height effectually to protect them from the south-west wind, to which this inclosure is much exposed; it is an illustration of what may be expected, if planting oak and nurses of equal size, and, at the same time, as recommended by Mr. Brown, be adopted in future inclosures.

Hasley.

I quite agree with Mr. Brown that some of this land is so inferior that the pines should be retained for the ultimate crop on it, and the oak on the better land. I, however, scarcely think a wet place could be found in this inclosure, as all wet places have been abundantly drained; and, to drain the whole of this inclosure at either 40 or 50 feet apart, would be an outlay worse than useless.

Mr. Brown states, that "the inclosures Clumber, Ferney Knapp, Stubby Copse, King's "Hat, Foxhunting, Little Foxhunting, Linford Great, and Linford Small, are in every "respect similar to the one just discussed, and the remarks upon it are equally applicable as "to these."

I am assured by the forest officers, who believe they accompanied Mr. Brown during the whole of his survey, that he did not inspect Ferney Knapp, King's Hat, Foxhunting, or Little Foxhunting; I think, had he done so, he would scarcely have compared them to Hasley inclosure.

II. With regard to the system of management which should be adopted for the future improvement of the plantations in the New Forest.

Mr. Brown says, "It will appear from the statements made in the foregoing part of this "report, that the several plantations of the New Forest have not hitherto been under a system "of management conducive to their healthy developement, and that, as the result of the "defective management under which they have been, they are now, generally speaking, "inferior in value as compared with other plantations of the same age, which have been "reared under a well-conducted system."

I confess

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I confess I should like to see the plantations referred to, and compared by Mr. Brown with these in the New Forest as being superior.

As I have already shown, by reference to reports and documents, that many of the assumptions and statements made in the foregoing parts of Mr. Brown's Report are inaccurate, and are not founded on facts, I respectfully beg to submit that the conclusions at which he has arrived are equally incorrect; nor do Mr. Brown's remarks prove mismanagement, as I think it should have been proved, before condemning nearly everything, as he has done.

I do not think it necessary here to dwell further upon Mr. Brown's Report under the above head. That gentlemen's opinion and mine evidently differ so wide as to what efficient drainage is, as to what judicious thinning of an oak-plantation is, and finally, as to what a good oak-plantation is, that I think it would answer no good purpose for me here to recapitulate the opinions I hold, and have expressed in the earlier part of this, and also in other reports.

I have seen most of the largest plantations in England, and some of those in Scotland to which reference has been made, and I certainly never saw any oak-plantations so good as those in this and the other Crown forests, taken as a whole. Of course, there are spots of poor land upon which the trees have not made great progress, but this must always be the case in a district like the New Forest.

Mr. Brown has arrived at the conclusion, that the plantations have been under defective management, and proposes to frame his recommendations with reference to the system of management which should be adopted for the future improvement of these woodlands, on the "very essence of the most modern and improved system of arboriculture." I believe these woodlands have not been so badly managed as Mr. Brown thinks. At the same time, I disapprove of the mode of felling timber, again lately adopted, to which I have already adverted. One word I must say further, as respects drainage. I am informed, as already stated, that Mr. Brown was in the forest during the wettest season known there for many years; and, as I understand that he rode in the tracks during the time, and did not walk or ride across any of the drained land so as properly to inspect it, I scarcely think his experience is sufficient to warrant the adoption of his suggestions as regards additional drainage.

III. "As to the introduction of sawing-power moved by steam-machinery for the conversion and manufacture of all timber except that suitable for the Royal Navy, and such other timber as may be too large for the circular saw."

Mr. Brown says, "I am decidedly of opinion that there being so large a quantity of rough, defective and decaying timber in this forest, it should be disposed of within as short a time as may be consistent with judicious management, and that, with a view to this, every means must be used to facilitate its sale by conversion and manufacture, in order to meet the demands of the public, and I am not aware of any means which could be adopted more likely to prove effective and satisfactory in its results than that of the introduction of a sawing-power with steam-machinery."

"In order, however, that the usual advantages resulting from the introduction of sawing-power, in respect to the sales of timber may be secured in the New Forest, it will be of the greatest importance to deal as much as possible with extensive consumers of wood, as with the usual retailers, upon a small scale, who live in the neighbourhood of the forest. The importance of this will be more evident, when it is understood that the greater number of the parties who at present buy wood are only retailers upon a small scale, who sell it only in the round state to extensive consumers, at considerable distances from the New Forest, who again cut it up for their own purposes; whereas, could sales be effected directly with these consumers, they could have their wood converted and manufactured by means of the sawing-power in the forest, and would thereby be enabled to give the seller a much higher price for it than the retailers can possibly afford to give, and who, of course, in buying the rough timber, must calculate upon considerable extra expenditure in the item of carriage before they can dispose of it."

Mr. Brown is mistaken in supposing that the greater number of the parties who at present buy wood in the New Forest are small retailers, and that they sell timber in a round state. The fact is, that these parties are extensive timber-merchants residing in London, Southampton, Portsmouth, Salisbury, Botley, Redbridge, Lymington, and other towns, and some of them buy many thousand loads of timber annually, but they never sell it in the round state, as scarcely a stick of oak-timber ever leaves the New Forest in that state. They send cargoes of hewn timber to Jersey, Scotland, Wales, Sunderland, and other parts, principally in the north. A steam-engine in the New Forest would be of no use to them, as their customers prefer having the timber in the rough, or hewn state, and converting it where shipbuilders find it can be done to the best advantage, namely, in their own yards. Shipbuilders living close to the forest do not often purchase, and never convert timber in the forest, but rather purchase what they want of the merchants, who deliver the particular sort they require in the yards of the consumers, where the latter convert to the particular shape and purpose for which they require it. It would scarcely, therefore, be reasonable to expect the shipbuilders of Jersey, Scotland, Sunderland, &c. to be attracted to the New Forest by giving them an opportunity of hiring a sawing-machine that would be of no use to them, and, from the compass-growth of the timber, it would not generally be suitable for purposes other than shipbuilding.

The shipbuilders themselves, even supposing for a moment that they could be induced to come from Jersey, Wales, Scotland, Sunderland, and other parts, into the New Forest, could not there convert the timber to advantage, as this can nowhere be done so well as in their yards. But it is clear that they would not buy of the producer direct in any case; they

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know too well, by practical experience, the advantage of a division of labour, and of the classification of the article itself, to the parties requiring it, and of being able to devote themselves wholly to their trade, ever to attempt to grasp the profits of the timber-merchants, by doing which, they would be very likely to lose their own. The fact that there is already a steam-sawing-machine at work in the New Forest seems to indicate that another is not needed, quite as much as that there is great profit derived from it. The converting of timber, and providing machinery for doing so is, in my opinion, much better left to private enterprise; nor is the fact that Mr. Brown finds a sawing-mill driven by water to be profitable at Arniston, a proof that one driven by steam would be so in the New Forest, as the situation, value of, and description of produce at Arniston are totally different from those of the New Forest.

The whole of the outlay hitherto incurred for sawing, on an average of former years, will not, as I am informed, be incurred in future. The carpenters' establishment at New Park is given up, and all repairs are now directed to be done by contract. Nor would a sawing-machine be of any use, as Mr. Brown supposes, for fencing, as the oak, for this purpose, is usually cleft on the spot where it is felled.

It seems to me, therefore, that Mr. Brown is mistaken in supposing that "the advantage "to be gained would consist in the improved price for the timber which the purchaser will "give, by reason of the great convenience of being enabled to convert his timber on the "spot;" or that, independently of this object, it would be conducive "to the interests of the "Crown to have one" (*i. e.*, a steam-engine, at a cost of 1,000*l.*) "introduced for the sawing "of the timber used for the general maintenance of the forest alone." As I stated in my Report on Dean Forest, I could not recommend the Crown to embark in the speculation of a steam-engine. The conversion of the timber, and the providing of machinery for that purpose, are better left to the merchants and tradesmen. The officers of the forest are already numerous, and it would render necessary a farther extension of the establishment. The more the transactions of the Crown are restricted to a wholesale scale, the smaller will be the establishment required, and the less the chance of loss by depredations.

IV. As to the annual value which may, under good management, be realized from the plantations in the New Forest.

This estimate of value is based upon the assumption, that an annual average extent of 330 acres of the crop of matured timber now standing on the 2,460 acres of the old plantations, and on the 8,000 acres of the open forest-land, are to be cleared. If an inflexible rule as to the extent to be cleared were adopted as proposed, the revenue would not be regular for five years, as stated by Mr. Brown, but would vary very much, according to the quality of timber on the 330 acres which might be selected to be cleared in each year. Some acres of old wood in the forest are worth at least three times as much as others, and consequently the receipts would vary in proportion. I should advise a much more moderate fall of timber per annum; and, if it is intended to realize a regular annual income for timber and thinning, of say 8,000*l.* to 10,000*l.*, that so much value of timber, rather than a definite number of acres, should be cut annually.

Mr. Brown's estimate of expenditure agrees, in a singular manner, with the deputy-surveyor's annual estimate of probable expenditure for the current year.

	£.	*s.*	*d.*
But Mr. Brown has omitted some items from his estimate, which amounts to			
	8,624	–	–
The following items, included in the deputy surveyor's estimate, are omitted from Mr. Brown's:			
Regarders, &c.	22	12	–
Keepers, &c.	1,098	6	–
Police	260	–	–
Surveying and mapping	50	–	–
Criminal prosecutions and general law expenses	150	–	–
New Park Farm	280	–	–
Repairs of houses, officers' lodges, &c.	325	–	–
Machinery, implements, &c.	30	–	–
Provender for horses, &c.	150	–	–
Materials and artificers' bills for navy-timber, bark, &c.	15	–	–
	2,380	18	–
£.	11,004	18	–
The estimate of expenditure prepared by the deputy-surveyor for the current year, amounts to £.	11,097	3	–

The above items are necessary, and should not have been omitted, for, although the principal of them, namely, 1,098*l.* 6*s.* is for keepers, yet Mr. Brown, from what he states respecting

respecting the establishment of keepers being a matter distinct from timber and plantations, is evidently not aware that the New Forest keepers do not only attend to the deer and game, but perform other important duties, in relation to the timber and plantations and the management of the forest, which, under any circumstances, would have to be performed by men, whether called keepers or by some other name, and therefore it is essential, in making an estimate of expenditure for the New Forest, to include the establishment of keepers and its cost. If the woodmen are reduced to 14, the keepers must be increased in number, for a property comprising 66,000 acres, with 20,000 acres of woodlands, could not possibly be properly protected, and the produce sold and delivered, with only 14 woodmen, even if it were an inclosed and private property; still less, can it be efficiently managed when, as in the present instance, it is subject to the various common rights. The duties of the keepers of the New Forest, or of groom-keepers, as they were called before the abolition of the Lord Warden's office, are very different from those of an ordinary keeper, or gamekeeper, which is the idea of them which Mr. Brown appears to have derived from the name alone.

Their duties are numerous and important, so long as the forest remains uninclosed. They issue the tickets for cutting turf and peat to the numerous parties who exercise rights of common of turbary, and see that it is cut in a proper manner on the inferior heathy parts of the forest alone, and there only by parties who have rights. They see that the fern is cut in proper places by those solely who have received tickets from the deputy-surveyor. They regulate, under the deputy-surveyor, the common of pasture, the cutting of furze, digging of gravel, sand, &c., and account for the money received for the same. They present all offences in their respective walks either before the verderers, or magistrates. They prevent encroachments, and not only protect the deer and game, but also preserve the woods and plantations from injury. They deliver the timber sold by auction to the purchasers, by written orders from the deputy-surveyor, after it has been hammered with the "sold" hammer-mark.

It must be apparent that 20,000 acres of woodland and plantations, to say nothing of 45,000 acres of waste, could not be left to the care of only 14 woodmen, however efficient.

The New Forest would soon return to the state, as regards encroachments and the destruction of timber, described in the Fifth Report of the Commissioners appointed to inquire into the state and condition of the Woods, Forests, and Land Revenues of the Crown, dated 1789, page 21, where they say:

"Numerous encroachments are also made, and cottages erected in the forest, and great "depredations committed on the timber and wood by the inhabitants of those cottages, and "other disorderly persons."

I think, therefore, that without the item for the establishment of keepers, for the protection of the woods and plantations, Mr. Brown's estimate is not correct.

V. Regarding the establishment which should be maintained for conducting, with all due economy, the affairs of these woodlands, I think the deputy, who is much more intimately acquainted with the localities than either myself or Mr. Brown, could state more satisfactorily how many woodmen would be necessary. It partly depends upon how many keepers are retained, as they are properly the police of the forest, and protect the woods from injury, so that the fewer keepers there are, the more woodmen would be required. Many of the plantations lie so wide, and are so exposed to depredations by the commoners and others, that I think it is impossible for any person, not intimately acquainted with the circumstances, to say how many woodmen there ought to be, and I, therefore, refrain from giving a decided opinion on this point. The deputy-surveyor is perfectly competent to advise on this, and all the points, upon which Mr. Brown has reported.

In closing this Report, which forms the last of a series upon Mr. Brown's Reports, referred to me by direction of the Lords Commissioners of Her Majesty's Treasury, I beg to say that, although their Lordships only required a statement in detail of my views on the several suggestions contained therein, yet I found in them so many positive statements which, from my own knowledge of the forest, I knew to be mistakes, and from which erroneous conclusions have consequently been drawn, that I have considered it a duty to all parties to lay before you, as far as lay in my power, the facts from which alone correct conclusions can, as I believe, be arrived at; and I trust that this laborious and far from agreeable duty, may now be completed to the satisfaction of their Lordships.

I have, &c.

The Right Honourable T. F. Kennedy. (signed) *John Clutton.*

APPENDIX.

Hurst Hill.

Mr. Brown observes, that there are some damp portions here, which, for the improvement of the crop, should be dried by means of open main drains, made to run along the sides of the roads, from which others of a smaller size should be cut into the body of the plantation where wetness appears.

I have been through this plantation many times at various seasons, and I am of opinion that it has been abundantly drained with good ditches in all parts which are not naturally sufficiently dry for the growth of oak-timber without ditching, and I can only account for Mr. Brown's different opinion by the fact before stated, that he only saw this plantation in

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the wettest part of the wettest winter known for many years, and that this possibly may have given him an erroneous idea of the plantation. If there is a fault in this plantation, it is, that in the lower parts the drains have been made too close, and consequently, now that the trees have attained a considerable size, some of them have been blown down, for the want of lateral roots to support them; and which I have stated, in my Report of the 22d June last on this subject, would, I believe, be the result of draining so close as from 40 to 50 feet apart, as recommended by Mr. Brown, in the new inclosures. That gentleman proceeds to say, "The trees forming the crop here are, generally speaking, comparatively small for their "age (40 years). I counted the trees on an acre in several parts, and found the average "number to be 230, with a diameter of seven inches at six feet from the ground. I consider "that in a well-managed oak-plantation of 40 years' standing, there should be only 200 trees "on the acre; consequently, in this inclosure, I am of opinion, that there are 30 trees per "acre too many, and to this cause is to be attributed, in part, the comparative small diameter "of the trees at their age; under good management, on such land, the trees would have been "at least 10 inches diameter."

It appears to me that the diameter of a tree, stated without its height, is not a criterion of the progress it has made, or of its value. Many short, and comparatively worthless, trees might be larger in diameter than the fine young trees in Hurst Hill, many of which are 10 inches in diameter at six feet from the ground, and 25 in height, giving the best promise of a supply of fine plank and "thickstuff" for the Royal Navy, when time has brought them to maturity. The average diameter, no doubt, is less than 10 inches; but this is accounted for by the system of planting adopted by Lord Glenbervie, and the other Commissioners of Her Majesty's Woods, in the plantations commenced in 1808.

Mr. Brown proceeds to say, "This comparative smallness in size of these oak-trees is, how-"ever, chiefly to be attributed to the circumstance of their Scots pine nurses having been "left too long among them; these have now been all removed, and, as the crop is generally "in a fair state of health, it will, under future good management in respect to regular thin-"ning and draining, wherever required, as recommended, rapidly improve."

Documents to be found in the deputy-surveyor's office at New Park, prove that larch and Scotch firs were only partially planted in about 55 acres of this plantation, and that 100 acres were left to nature; and the oak has become what it is upon this latter portion without planting of any sort, except in a few spots where Scotch firs were inserted some years after it was inclosed, in consequence of its having been found that the oaks would not thrive without them. These documents also prove that the larch almost entirely failed.

On the 17th September, 1813, Abraham Clayton and William Reed report as follows to the late Board of Woods, respecting Hurst Hill:—

"The larch has failed considerably. Some of those which remain in the dry ground are "growing vigorously, but those on the low ground are generally dead and sickly. Many "of the spruce-firs have failed, but some are recovering; the failures of both have been "mended over with Scotch fir, which are very thriving."

Mr. William Reed, one of the parties to this report, is yet alive, and having himself (as assistant to six successive deputy-surveyors of the New Forest) assisted in all matters relating to these plantations, from the day of his first employment, in 1808, to that of his superannuation, in 1851, his knowledge and experience are very valuable as guides to successful planting in this particular locality.

The Scotch firs planted as nurses since 1826, have gradually been removed during the last 20 years, and the oaks have been regularly thinned during the same period; not, indeed, according to "the rules of practical geometry," but according to the growth and requirements of each part of the plantation.

Much useful information on planting is to be found in the First Report of the Commissioners of Woods, Forests, and Land Revenues, and in the Appendices 16, 17, 18, 19, and 20. In these, Lord Glenbervie states, respecting the diversity of opinion which he found to prevail amongst most respectable people, regarding some of the more important points in planting, in these terms: "However, though these considerations must naturally excite diffidence "and caution, they ought not to prevent us from endeavouring to proceed on the best grounds "on which it is now in our power to act; and these seem to be, 1st, to follow the united "opinion of persons of acknowledged judgment, experience, and observation, where they "agree. 2d. Where they do not agree, after examining the different opinions which have "been obtained, to adopt such plan as shall seem to have the weight of authority on its side. "Or, 3d. To try several different plans, where the opinions seem equally balanced, in the "several plantations about to be made."

Having already, in more than one Report, given my opinion as to the state of these inclosures, I forbear to say more here respecting them, than that a sufficiency of drains exist in all low wet parts requiring draining; and the present appearance of the young trees will speak more convincingly than I can to all experienced and unprejudiced persons sufficiently interested in the subject to be induced to inspect them.

Wootton.

This is not so flourishing a plantation as Hurst Hill. It lies generally upon cold wet clay. A great deal has been done to it, in the way of draining and filling up with Scotch fir, &c., from time to time, since it was planted.

Mr. Brown's surmise, that the present condition of the oak-crop has been caused "by the "want of sufficient nurses," is, I think, partly correct. But this condition does not arise from the oaks having been over-thinned at an early period, as they were not thinned at all until

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until the year 1834; and that operation has since been carried on with all requisite caution.

This plantation was one of the first of those which were made in 1808, before experience had suggested that the plan of planting oaks with Scotch firs, as nurses, was the more profitable one for the New Forest. Experience has since shown how indispensable Scotch fir is in such a cold and frosty situation. The larch and spruce firs proved of little use. On the 17th September, 1813, Abraham Clayton and William Reed report to the late Board of Woods, respecting this inclosure, as follows:

"Wootton Inclosure.

"The principal part of the larch and spruce-firs have failed, which failures have been "mended over with Scotch firs, that suit the soil better."

Had the Scotch-firs been used here, as nurses, in the first instance, to the extent to which they were subsequently to 1826, I have little doubt that the oak-trees would now have been in as flourishing a condition as those are which have been planted since that time. I should not advise that any further expense be incurred in new drains. The existing ones only require cleaning, which, in the usual course of management, is about to be done. Much of the comparative inferiority of the oaks here is to be attributed to the blight, or the caterpillar, to which this inclosure is very subject, but of the existence of which Mr. Brown does not take notice. All the plantations are subject to them, and no management that I am aware of, can prevent them. Some plantations are peculiarly liable to them, and for as many as four years in succession, there have been no leaves on the trees in the month of June; and if, in such a plantation, a tree be now felled, and the butt examined, the four narrowed rings will show the extent to which the increase in diameter has been retarded by these casualties.

New Coppice.

Mr. Brown describes this plantation "as for the greater part a strong clay, excellently "adapted to the rearing of oak to valuable dimensions;" and proceeds to say, "It has, how-"ever, been only partially, and very inefficiently drained, and is, consequently, for the greater "part, very damp, and the crop upon it generally inferior of its age (40 years). For the "improvement of the health of the crop, therefore, the same system of drainage should be "pursued as has been recommended under the head, 'Hurst Hill.'"

This land is certainly not drained from 40 to 50 feet apart in every part, whether wet or dry, requiring or not requiring draining; but there are in all the lower parts which require them, a great number of drains running freely, and I do not think that any further outlay in drains would be advisable. It is clear, from what Mr. Brown states in his Report, when speaking of Ivywood, that he is altogether under a misapprehension as regards all the plantations made prior to 1826, for he therein states, "The oak-trees in all the plantations of the "New Forest have been planted in lines eight feet, one line from another, and four feet from "plant to plant in the lines; and the pine-nurses have been planted in lines alternately with "them, four feet from the oaks on each side, and four feet from each other in the lines; thus, "making the trees in these plantations, before thinning was commenced among them, four "feet apart all over."

I make this reference to this statement again here, as it appears to bear upon every plantation made between 1808 and 1826. But, as I have already stated, none of the plantations made prior to 1826, and of which New Coppice is one, were planted in the manner described. Indeed, 223 out of the 280 acres which New Coppice contains, were left to nature, as appears from the report by Abraham Clayton and William Reed, dated September, 1813.

It is not surprising that, when the planting was first commenced in 1808, the plan of leaving some parts to nature should have been adopted. It is one which has not unfrequently been adopted in Kent, Sussex, and Surrey, where, although the land has never been planted, there are fine crops of oak.

Broomey.

I think Mr. Brown is also mistaken as regards this plantation "having been much injured "at an early period by the too sudden removal of the pine-nurses." This is one of those in which the pine-nurses were not planted among the oaks at first, and where Mr. Brown observed Scots pine, of considerable size, growing at wide distances amongst the small branchy oak-trees; they are those planted (as before described) in every fifth hole in every third row. I should, under the peculiar circumstances of this plantation, be inclined to doubt the policy of cutting down and removing the Scotch fir, as recommended. The present deputy-surveyor has tried this practice, under similar circumstances, and found it inexpedient.

Mr. Brown states that "the inclosures of Holly Hatch, Roe, and Godshill Wood are in "every respect similar to the one just discussed, and the remarks made upon it are equally "applicable to these." I am informed by the forest officers, who believe they attended Mr. Brown throughout the whole of his survey, that as Godshill Wood (384 acres) is an outlying plantation, Mr. Brown did not, whilst with them, go within several miles of it.

Godshill plantation varies considerably; some parts of it having an exceedingly good oak-crop, others having a crop of Scotch fir, for which only the soil is adapted.

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WILVERLY.

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The remarks which I have made in the case of Hurst Hill, upon Mr. Brown's Report as to draining, as well as those respecting the pine-nurses, will apply here. Very few firs were here planted amongst the oaks, and, therefore, the unthrifty state of the latter, which Mr. Brown describes, can scarcely be ascribed to their having till of late been unduly "confined" " and drawn up among their pine-nurses."

As regards the dead branches on the trees, Mr. Brown says, " In examining the trees in " this inclosure, my attention was strongly drawn to the very unusual quantity of dead and " partly-rotten branches which I saw protruding from the stems of very many of the trees; " these branches are generally from one to two feet in length, and from two to three inches " in diameter. From this fact, I infer, that the parts of the inclosure on which those dead " branches are found on the trees had, about 15 years ago, been severely thinned, and the " trees left standing at too great distances one from another, whereby an undue growth of " lateral branches had been induced; and afterwards, as the trees advanced, and their lateral " branches became confined among their neighbours, these, of course, gradually died; and " thus, by this injudicious thinning, very many of the trees in this inclosure are now much " deteriorated, both in respect to their present and prospective value, and cannot possibly ever " become so valuable as timber, as they would have attained, had those dead branches not " existed upon them."

My inquiries into the facts in the history of this plantation have confirmed my previous impressions, that Mr. Brown's inference respecting its having received a severe and injudicious thinning about 15 years ago, is not the true cause of the decayed boughs upon the trees.

This inclosure was planted, in the first instance, with acorns. I have ascertained from Mr. William Reed, and from old woodmen who saw it first planted, and have watched it ever since, that no severe thinning has ever taken place. But the cause of the dead boughs as they exist is, that the oaks (owing to the failures among the acorns) upon the poorer parts of the plantations did not stand so thick as they should have done, and there was not a sufficient number of Scotch-firs among them to protect them in the early stages of their growth, and they, consequently, became branchy.

Mr. Brown proceeds to remark respecting pruning, " that the defective condition of a " very great portion of the old timber now lying cut in the New Forest is to be attributed " to this cause alone; namely, that dead branches have been allowed to remain on the trees " till considerable portions of their bases became imbedded in the stems, and induced rot in " those parts; and to recommend that the stems, not only of the oak-trees in the inclosures " now under notice, but also of those in all the inclosures of the Royal forests, should be " kept clear of dead and decayed branches of every description; and, as this operation may " be effected, under careful management, at a merely nominal cost, and more especially as " its results will be most beneficial to the timber, it should on no account be neglected."

It appears to me that this is the most dangerous of Mr. Brown's recommendations, and should on no account be acted on. Excessive and useless draining may be remedied by filling up the drains, and mistakes in planting by putting in the proper plants afterwards; it is only a loss of time and money, but nothing can remedy the effects of pruning; money cannot cure the defects caused thereby, and time only increases them. The deputy-surveyor had, before my recent survey, and upon Mr. Brown's suggestions, cut the dead boughs off the trees on a part of this inclosure; but I am quite satisfied, from my own experience, as well as by that of extensive timber-merchants, that no bough, whether dead or living, should at any time be cut from an oak. Of course, the larger the bough the greater the injury, but no bough can be cut off without injury; certainly no good can result. If an oak-tree will not grow, without pruning, it will never make good timber, with pruning. I understand these dead boughs were caused by former deputy-surveyors having directed the branches of these short trees to be "snag pruned," as it is called (that is, to cut the boughs off two feet from the stem), to induce the trees to grow better in the head; but, in my opinion, this was a mistake. The boughs have since died, and will in a few years fall off. If left to themselves, oak-trees will, when nature requires it, cast their boughs; and experience has shown that boughs thus dying naturally, do not inflict injury to the tree; or, if it ever is injurious, it is so seldom as to be quite an exceptional case.

The practice of pruning is so dangerous where sound timber is required (more especially where it is required for the navy), that I cannot too forcibly condemn it; its effects are but too little known, excepting to the hewer, the sawyer, and the merchant. They are hidden from the eye, and are only found out, when the trees are felled and converted. When I was last at Portsmouth Dockyard, a sternpost had been fitted to a first-rate man-of-war; when it was bored for the placing of some bolts through it, a serious and previously-hidden defect was discovered, causing the expenditure of a very large sum to replace it; and this was caused by boughing, or pruning. I have before me specimens of the effects of cutting, sufficient to deter any owner of timber from pruning, independently of the testimony of those who have suffered severe pecuniary losses by the practice. The late Duke of Bedford, for instance, is stated to have estimated his losses by the pruning of trees at many thousand pounds. In fact, it is ruinous to oak-timber; and I think that, so far from introducing them, it would be well if the use of the chisel and mallet were altogether prohibited in the Royal woods and plantations, except by the purveyor to the navy on felled timber.

It would be far wiser to give any advocate of the chisel-and-mallet-system a thousand a year, to keep out of the forest than to allow him to prune the oak-trees.

I believe Pontey, who advocated and practised pruning, injured the timber of landowners who

who employed him to the extent of many thousand pounds. I do not mean that Mr. Brown advocates pruning to the extent to which Pontey did, but he would permit it until the bough exceeded a diameter of three or four inches, while I would not permit it at all, even to cutting off a dead bough. I believe the defects of the timber lying felled in the forest arise, not from boughs dying off, but from their having been cut off both dead and living.

I cannot understand how any man having a knowledge of the management of oak-timber can recommend the pruning of a living or dead bough from an oak-tree, though one bred amongst, and having had the management of the fir-tribe, or inferior hardwood trees, might suppose that an oak would not be injured more than they are; but he can have had, I think, little experience in the selling of old oak-timber; otherwise, he would not recommend so pernicious a practice.

Aldridge Hill.

This plantation is, for the most part, naturally dry; but, in the few parts requiring them, sufficient drains have been made; I should not, therefore, think it wise to go to any further expense in draining.

Mr. Brown considers that the trees are of very small diameter for their age, which he states to be 40 years; but there are several painted boards in different divisions of this plantation (which was wholly an experimental one), setting forth that it was not planted with its present crop till the winter of 1817 and 1818, except in one division, which was planted sooner, and is about 40 years old. He further states, that it is evident that they (the oaks) had, previous to the last thinning, 1851, stood in an extremely neglected and confined state, and that they never can attain such a first-rate size of timber as they would on land of so favourable a character, had they been thinned and attended to 20 years ago. I surveyed this plantation, in 1849, and certainly did not find it in a neglected state. It never had any Scotch-firs intermixed with the oaks; only a belt of firs was planted on one side, to protect it from the south-west winds. It is a very thriving plantation, and it has been regularly thinned from the year 1834 to the present time (1853), a period of 19 years, as can be seen on reference to the sale books of flittern bark at New Park.

Whether the trees are 35 years old or 40, as Mr. Brown states, they are good; and the management, now in force, should be continued.

Stockley.

There are parts of this plantation which, as Mr. Brown states, are very poor land, and this, combined with the circumstances of their having been injured by fire, accounts for the fact that the oaks are small; but there are on these poor spots some Scotch-firs, and on such portions Mr. Brown recommends that the crop "should be altogether cut down, and disposed "of, and, as the land on which it is situated is quite unfit for the growth of the oak, it should "be allowed to remain open, and unplanted."

I cannot understand the good policy of this plan of cutting down and clearing certain parts of a plantation, and allowing them to remain altogether as waste and unprofitable, because the trees are not growing so fast as on other parts. It seems to me that, even though the trees do grow but slowly, and are not likely to attain so great a size as on the good land, it is better to have a slow growing crop than none. Slow grown timber is more durable than very quick grown trees, and much small as well as large timber is required for ship and boat-building purposes, particularly when it is crooked, which is usually the case upon poor land; and even if it never attains much value in itself, it at least helps to keep the rest of the plantation warm, and it occupies the ground of the Crown against the commoners.

Burley New.

It does not seem necessary that I should make any comment upon Mr. Brown's Report upon this inclosure, as what I have said respecting others generally applies here. I should not advise any further outlay in drains.

Lodge Hill.

I should not advise any further outlay in drains in this inclosure. I consider that the difference in quality of the crop arises from the variation in the nature of the soil, and not from its state as regards drainage.

Church Place.

Here also it appears to me that the crop is varied in its growth from the same cause, and not from comparative wetness; and I should, for the reasons given in the case of Stockley, by no means advise that the inferior portions should be laid waste.

Anderwood.

I should not advise any further outlay in draining, for the reasons before stated with regard to other plantations.

Setthorns.

Mr. Brown again falls into an error in supposing that the oaks are of a weakly habit from having been excessively drawn up among their pine-nurses, as the fact is, that at first the oaks were planted without nurses, and even when it was found that they would not get up without the firs, the latter were only introduced in occasional belts.

I should most strongly deprecate the laying waste and destroying any part of this

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plantation, as recommended, or the expenditure of more upon it in draining. This plantation is generally good. There are some weak and slow-growing spots, attributable to the povery of the soil; but upon this latter portion a small crop is better than none.

HOLM HILL.

I should not recommend that any part of this plantation should be laid waste, or further drained, as proposed by Mr. Brown, for reason stated in Setthorns.

COSTICLES.

Respecting this inclosure, Mr. Brown states as follows:—

"This is a plantation of oak about 22 years of age, with a portion of the pine-nurses still "remaining.

"On some spots where the land is naturally dry, the trees are very promising and good of "their age; but, on the other hand, where it is damp, they are inferior, and not generally in "so promising a condition as they would have been, had the land been made dry by "drainage."

I have had the drains in this plantation examined, and I find that, on the lower and wetter portions, there are some only 36 feet apart, and they gradually increase in distance on the less wet portions, till upon those spots where the land does not require draining at all there are none. To my mind, this is the right method of draining a plantation; and, so far from recommending any further outlay on drains, I think that in those places where they are as close as 36 feet, I should be inclined, before the trees get very high or large, to allow some of the drains to become filled up (reserving sufficient to keep the land dry); as otherwise, when the trees come to stand thin upon the ground, they will be liable to be blown down from standing too close to the drains.

It may have been necessary to have them as close as this in particular spots at first, in order to get the water out of the land, for it was formerly almost a bog; but now a portion might safely, and with benefit to the trees, be filled up without fear of injury from excessive wetness. I find the best spot in the inclosure is not drained at all. Some drained 36 feet apart is not nearly so good.

I do not mean to infer from this that the draining, up to this time, has done harm, but that the crop varies more from the situation and quality of the soil than, as Mr. Brown supposes, from the want of draining.

Mr. Brown proceeds to say,—

"Besides the want of drainage, another cause of the general unhealthiness of the "oak-trees on the damp land here is, that the pine-nurses have been too suddenly "removed, after having stood too long among them. Where trees grow on good dry "soil, they are invariably found healthy, and are not easily injured by injudicious thinning; "but, where they grow on damp land, they are badly supplied with roots, and consequently "in inferior health. Under these latter circumstances, it follows that, when trees undergo "an injudicious course of thinning, and are suddenly exposed after a previous undue con-"finement, they immediately become more unhealthy. The facts are fully exemplified in "the case of the crop in the plantation now under notice."

In my opinion, the oak-trees in this plantation are not unhealthy; and, taking the situation and quality of the soil into consideration, I think I never saw a finer young oak-plantation of its age. The bark of the young oaks is clean, and of a silvery colour, and free from the grey lichen which Mr. Brown contends proves dampness in the subsoil, and unhealthiness in the trees.

As regards Mr. Brown's statement, that "till of late, all the pines have stood among the "oaks, and only a short time since the nurses have been removed in a very sudden and "injudicious manner."

I was much surprised at this statement, and I requested the deputy-surveyor to give me the particulars of the time when the Scotch-firs were removed; and he has furnished me with extracts from the books, showing the quantity of Scotch-firs cut from Costicles from 1839 to 1851, since which time none have been cut, as follows:—

	FIR FAGOTS.	FIR POLES.	
1839	700	none.	
1840	175	none.	
1841		375	
1842	6,850	2,225	
1843	10,600	1,175	
1844	3,175	3,275	Cords of wood, 2.
1845	2,000	2,100	
1846	5,175	2,250	
1847	2,100	2,995	
1848	500	460	
1849	500	—	
1850	—	—	
1851	1,600	500	Fathoms of wood, 5.

This

This statement clearly proves that the Scotch fir-nurses have been gradually removed, some every year (except 1850) during the last 13 years, and at no one time has any very large quantity been removed.

There now only remains a belt of Scotch-fir, and a few lines of them at the south-west end of the plantation, to break the force of the south-westerly winds, and which I should, for the present, leave as they are. I scarcely think that any plantation could have been made, or managed, with more judgment than this has been.

Fletcher's Hill.

Mr. Brown's Report upon this inclosure does not seem to require any comment from me.

Ivy Wood.

Mr. Brown reports respecting this inclosure: "The land is all of a good quality, and the "crop is, accordingly, generally in a vigorous and healthy condition. I must, however, advert, "at some length, to the injudicious manner in which this plantation has been thinned of "late, and which is not only hurtful to the health of the trees while in their young state, "but has also a tendency to deteriorate their ultimate value."

This plantation was made subsequent to 1826, and therefore was planted with alternate rows of oak and Scotch-fir, the lines of nurses being placed exactly at right angles across the line of the prevailing, or south-west wind. These nurses have, as appears by extracts before me from the books at New Park, been gradually removed ever since the year 1843; whole lines have, from time to time, been taken out, but I cannot condemn this method of clearing "as injudicious in the extreme," because even Mr. Brown allows that the result of it is, that the crop is generally in a "vigorous and healthy condition," and it would be impossible, except at a considerably-increased expense, and damage to the oaks, to cut every alternate nurse, instead of the whole line; because, when the whole line is taken out, they can in felling be thrown upon one another, but, when every alternate one is taken out, they must be thrown among the oaks, whereby damage would be done to the latter. Besides, to adopt this course with the few lines that remain, would be entirely to nullify the advantage of breaking the south-west wind (one object for which they were planted, and are now for the present kept standing), and which is found by experience in the New Forest to be so great, that it is the remark of an old forester, that if they could be made twice as thick, so as to make a perfect wall against the south-west wind, it would be all the better for the oaks they protect, and far outweigh any injury that may be done to the oaks in the lines immediately adjoining them by drawing them up too fast. For even supposing, as Mr. Brown does, they should before the firs are removed be so drawn up and weak as to be irrecoverable, there would be an abundance of oak for the ultimate crop without them; but, in practice, it is not found that they are seriously injured. I should, therefore, not advise that every other fir of the remaining lines should be taken away in this, or other similar inclosures. I do not think that the oak-trees here are getting too strong in the branches, or will, if they continue to be managed as well as hitherto, ever become like some of those of Wilverley, as Mr. Brown fears. Oaks of every form and shape are useful for ship-building, compass-timber being particularly valuable.

No. 15.

My Lords, Office of Woods, &c. 1 September, 1853.

I beg leave to transmit herewith copy of a Report received from Mr. Clutton, dated the 16th of August, containing his observations on Mr. Brown's Report on the general subject of the New Forest, dated 31 March last, and which I transmitted to Mr. Clutton, in accordance with your Lordships' instructions, of 21st June.

I beg to acquaint your Lordships, at the same time, that I have transmitted a copy of Mr. Clutton's Report to Mr. Brown, in order that he may make such observations thereon as he may wish.

I have, &c.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury. (signed) *T. F. Kennedy.*

No. 16.

Sir, Office of Woods, &c. 1 September, 1853.

I now transmit, for your information, copy of a Report which has been received from Mr. Clutton, on your Report of the 31st of March, on the general subject of the New Forest; and I have to request that you will furnish me with such observations on the same as you may wish to make.

I am, &c.

Mr. James Brown, Arniston. (signed) *T. F. Kennedy.*

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Mr. Brown's and Mr. Clutton's Reports.

No. 17.

Sir, Treasury Chambers, 13 September, 1853.

WITH reference to your letter, dated the 1st instant, enclosing copy of a Report from Mr. Clutton, containing his observations on Mr. Brown's Report on the general subject of the New Forest,

I am commanded by the Lords Commissioners of Her Majesty's Treasury to state, that my Lords reserve their opinion on these important matters, until they shall have the whole of the correspondence before them, with Mr. Brown's last Report.

My Lords quite approve of your having submitted Mr. Clutton's Report for that gentleman's observations.

But, in the meantime, my Lords would call your attention to Mr. Clutton's observations upon the present system of felling timber in the New Forest, in which Mr. Brown also concurs; and to the immediate inconvenience and loss which must arise from an accumulation of inferior timber, as well as the greater difficulty, in future years, of procuring a proper proportion of good navy-timber.

I am, &c.

The Right Honourable T. F. Kennedy. (signed) *C. E. Trevelyan.*

No. 18.

Sir, Arniston, 19 September, 1853.

I HAVE had the honour to receive your letter of the 20th July, transmitting copy of a Report which you had received from Mr. Clutton, on the subject of my Reports, dated respectively the 28th of November and the 18th of December 1852, and 25th February 1853, relative to the recent plantations, and the establishment of nurseries in the New Forest; and requesting that I should furnish you with such observations on the subject as I might wish to make.

Having given Mr. Clutton's Report my careful consideration, I have the honour herein to lay before you my opinion respecting such points in it as I consider have an important bearing on the subject of the recent plantations, and the establishment of nurseries in the New Forest.

In discussing the several branches of Mr. Clutton's Report, I propose to take them up in the order in which they stand. The first point adverted to, refers to the system of drainage which, in my Report of the 18th December 1852, I have recommended, in order to secure a healthy and sound crop in all the inclosures which may, in future years, be planted. In reference to this point, I have recommended that "all the inclosures which may, in future "years, be planted in the New Forest should be drained in every part, even where the land "may appear dry, at distances from 40 to 50 feet apart, according as the land to be operated "upon may be retentive, or open in the subsoil." Mr. Clutton, in adverting to this, states, "This recommendation appears to me to be, if taken in its full extent, an extremely unwise "and improvident one; I believe that, for the healthy growth of oak-timber, it is only neces- "sary to make drains in places in which the water stagnates, or where it would, without such "artificial drains, remain for a lengthened period."

In answer to this statement, I have to remark that, from Mr. Clutton having stated as his belief, "that for the healthy growth of oak-timber it is only necessary to make drains in "places in which the water stagnates," it is to be inferred that he has had no experience as to the great advantages resulting from thorough drainage, as now applied to arboriculture, by the most enlightened practical men. Mr. Clutton, indeed, ventures only to state that it "appears" to him that the recommendation set forth by me, in respect to the drainage of the inclosures of the New Forest, is "an extremely unwise and improvident one," and does not affirm whether he has ever seen the system I recommend put into practice. Besides Mr. Clutton, there are, I am aware, many managers of plantations who adhere to the old system, to whom the thorough drainage of land for the growth of timber "appears extremely unwise "and improvident." I have, of late, inspected many thousands of acres of woodland on the estates of private proprietors; and, in all cases where I have found plantations unhealthy and comparatively inferior, I have found the chief cause of this inferiority to be the neglect of thorough drainage, previous to the plantations having been made. Their managers had indeed drained, as Mr. Clutton suggests, for the inclosures of the New Forest, "in places in "which the water stagnates, or where it would, without such artificial drains, remain for a "lengthened period;" but the subsoil remained saturated, and no good was done to the crop by such an ineffective system. The neglect of thorough drainage, is the most prominent error of the old school of forestry, as well as of that of farming; and, while adherents to the old school remain, objections to the principles of the new one will, without doubt, be raised.

In reference to Mr. Clutton's statement now under discussion, I would simply ask whether an improving landed-proprietor, with an extensive estate to cultivate and enhance in value, would prefer letting his land to narrow-minded farmers of the old school, who would be satisfied with "draining in places in which the water stagnates," as Mr. Clutton suggests for the inclosures of the New Forest, or to men of liberal and well-informed minds, who would not be satisfied with anything short of a thorough and systematic drainage? Effective drainage is as essential to the really profitable management of woodlands, as it is to that of arable land; and the proprietor, or manager, who would, in the case of the former, be contented with

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with what Mr. Clutton suggests, the "making drains in places where the water stagnates," and in these alone, would show himself as far behind the advanced position of the age as regards forestry, as the proprietor, or tenant, who should follow a similar course in the case of the latter, would manifest his uselessness and inefficiency as an agriculturist. The course Mr. Clutton suggests would be the really "unwise and improvident one," because, for the sake of a comparatively trifling economy at the outset, it would ensure the ultimate deterioration of the crop to an incalculably greater amount.

Mr. Clutton next goes on to say, in reference to the system of drainage recommended by me, "I can state that a large unnecessary expenditure has been already incurred there; some "of the land is sand, requiring no draining, and a further portion of it is open in the subsoil, "requiring very little draining."

In my Report of the 18th December 1852, I have stated that "the effects of drainage are "not only the removing excess of water from the soil, but also cleansing it from any bad "qualities naturally lodging in it." These, however, constitute but a small part of the beneficial results of such a complete system of drainage as I have recommended. In addition to these advantages, thorough drainage renders the soil warm and congenial to the roots of trees, and, at the same time, its fertility is much increased by the operation. When a soil is undrained, and much water consequently lodges in it, it is found cold and uncongenial to the healthy action of the roots, while also the available food of the trees is always held dissolved in such a large portion of water that an undue quantity of liquid must be taken in by their roots; much work is done by them, and yet only a scanty nourishment is secured for the supply of the tree. Trees, in undrained soils, necessarily hold much water in their stems and leaves, consequently, their interior temperature is kept down by continual and excessive evaporation from their surfaces, and the chemical changes, on which their growth depends, must, under these circumstances, proceed slowly. This is fully exemplified by the present condition of the crop in the inclosures of the New Forest. The facts above stated in respect to drainage, are proved both by science and experience, and in the knowledge of these, and with the view of obviating the unhealthly tendency which superfluous water has on the constitution of trees, I have recommended that a complete system of thorough drainage should be put into execution in all the inclosures of the New Forest, before young trees are planted in them.

Having stated thus much, in reference to the advantages derivable from a well-conducted system of thorough drainage, it would be superfluous in me to discuss this point much farther; I must, however, remark that, in asserting "that a large unnecessary expenditure "has been already incurred there," Mr. Clutton has taken an exceedingly narrow and unscientific view of such an important subject as that of planting oak for the growth of timber for the navy. If this work is not gone about upon the soundest principles of the art, it will, without doubt, ultimately fail to produce the object in view, namely, sound and healthy timber of large dimensions. Every improving private proprietor is now aware of the beneficial results of thorough drainage, previous to planting trees, and he spares no reasonable expense to have it properly done; and, should Government decide on draining their woodlands only in parts where water stagnates, as Mr. Clutton suggests, they would most assuredly, in the end, reap only an inferior crop. As to Mr. Clutton's assertion, that "some of the land is sand, requiring no draining," I may only remark that, in the thorough draining, I have generally found the greatest quantity of water in the sand and gravel strata.

On this subject of drainage, Mr. Clutton further states, "If Mr. Brown's suggestions to "drain every part of inclosures to be made in future years be carried out, I believe that a "wasteful expenditure of a sum of at least 14,000 *l.* will be the result;" and "I also believe "that one of the results of the adoption in this exposed forest of the proposed system of "draining would be, that when the oak-trees arrived at a large size, a considerable propor-"tion of them would, for want of sufficient lateral roots, be blown down."

In answer to the first of these statements, I have only to repeat what I have already hinted at, that the comparatively-trivial saving in the outset which Mr. Clutton proposes, would be followed, in the end, by an enormously greater loss, in the certain deterioration of the whole of the crop, and the entire destruction of much of it. Every forester who is at all acquainted with his business, on the improved principles of the age, is now so much alive to the advantages of drainage before planting, that he is willing to spare no labour on his part in having the operation properly performed, well knowing that every shilling injudiciously withheld in draining, will ultimately result in the loss of many pounds per acre in the value of the crop. Without thorough drainage, the land in question can never be made to produce such a crop of healthy and valuable timber as it is capable of doing under the opposite system; and, instead of the loss of 14,000 *l.*, of which Mr. Clutton speaks, Government will be the certain gainers in the end of twenty times that amount in the greater weight and finer quality of the crop produced under the system I have urged.

I cannot account for Mr. Clutton's opinion, "that one of the results of the adoption of "the proposed system of draining would be, that when the oak-trees arrived at a large size, a considerable proportion of them would, for want of sufficient lateral roots, be blown down," in any other way than by supposing that it is based on the fact of his having seen in most ill-managed plantations, where shallow drains are made "in places in which the water "stagnates," trees blown down along the sides of such drains. This must always occur in plantations where only a partial system of drainage, such as he recommends, has been adopted, and where the ground has not been made sufficiently dry for the health of the roots of the trees; while, on the other hand, wherever thorough drainage has been secured by such a system as I have recommended, and with the drains kept regularly clear, the trees

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are invariably found supplied with strong and healthy lateral roots, even under the bottoms of the drains; and these roots increase in number and strength in the neighbourhood of the drains as the trees advance in size. Mr. Clutton's statement, therefore, is not only wholly unfounded, but directly the reverse of the truth.

In referring to my recommendation to use larch, instead of Scots-pines, in the rearing of oak in the inclosures of the New Forest, Mr. Clutton remarks, "I take the liberty of "stating my doubts whether Mr. Brown's experience of the soil, climate, and situation "of the New Forest is such as to give great weight to this recommendation." In answer to this, I may observe, that a very small amount of observation and experience is sufficient to convince any one at all acquainted with the natural habits of trees, that the soil, climate, and situation of the oak-producing land of the New Forest, are such as to induce an excessively rapid growth in the Scots-pine, and thereby, in a very short time, to give that tree an undue ascendancy over the oaks, thus causing it to become, to a great extent, the destroyer of the permanent crop, instead of its nurse. This fact is fully exemplified by the general condition of the oaks in almost all these inclosures, the healthy development of which has been very much retarded and impaired by the Scots-pines which have grown amongst them as nurses. No tree with which I am acquainted is so susceptible of injury from confinement as the oak, and, as the Scots-pine grows rapidly in the rich oak-producing land of the New Forest, its heavy branches and close massive foliage very soon render it the most unfit neighbour possible for the oak, with a view to its healthy development as timber; and this more especially in inclosures so large as those in the New Forest.

Mr. Clutton proceeds on this point: "There are a few situations in which larch may be "usefully, and with superior advantage, employed as nurses, but experience has shown that, "in the far greater portion of the plantations, the Scotch-fir is the best nurse, and that "young oak-trees cannot, in such situations, be reared with the best advantage without them; "to abandon the use of the Scotch-fir to the extent recommended by Mr. Brown would, in "my judgment, be wrong, as, from my knowledge of the localities which must be chosen "for future plantations, as well as of those which are now in progress, I am confident that "the Scotch-fir is the only nurse that will efficiently protect the oak in its earlier stages "from the wind and frost from which it will be liable to suffer, and that the substitution of "the larch for the Scotch-fir, as recommended, will certainly lead (except in the few situa-"tions alluded to) to much loss and disappointment."

In reply to this statement, I have to remark in the first place, that, had Mr. Clutton pointed out and described the peculiar nature of the "few situations in which," in his opinion, "larch may be usefully, and with superior advantage, employed as nurses," it would have been satisfactory; what is the nature of these "few situations," I cannot discover from the statement before me. In my Report of the 18th December 1852, I have recom-"mended, as a highly-improved method of rearing oak, entirely to exclude Scots-pines as "nurses, from these inclosures, and to use larch alone for that purpose;" and further, that "Scots-pines may be used where decided shelter from a particularly-exposed point is "required; and may also, with great propriety, be planted on any knoll of very poor land "in an inclosure where the oak could not be expected to succeed profitably." This is the method now adopted for the rearing of oak by the most experienced, intelligent, and successful foresters, and it is the one I have long practised myself; I have found it highly advantageous to the healthy growth of the young oak-trees, inasmuch as the oak, being a tree extremely liable to be injured by undue confinement and the want of a free current of air, the deciduous, upright, and rigid habit of the larch does not impede its free development, as the Scots-pine must always do.

It does not appear, from anything Mr. Clutton says, that he has had any opportunity, or has availed himself of any, of comparing the relative conditions of oak reared under the two systems under discussion. His experience seems to have been limited to the one alone, viz., the employment of the Scots-pine as the nurse. Experience does not consist in a knowledge of the effects of one system of operations, but in a judicious comparison of the effects of several. In the New Forest, Scots-pines alone, with very few exceptions, have been used as nurses; and the opinion he expresses must, therefore, be taken with great qualifications, especially if it shall appear that the system urged in opposition to his has, in circumstances far less promising, been found eminently beneficial.

On the estate of Arniston, as well as upon several other estates, I could point out the great advantages of planting oak with larchal one as nurses; and, in order to see the great disadvantages of employing Scots-pines as nurses for oak, it is only necessary to examine the present condition of the plantations in the inclosures of the New Forest.

That "the Scotch-fir is the only nurse that will efficiently protect the oak from the "wind and frost," is a mistake founded upon antiquated practice. My own experience has taught me that the very opposite is the case. Scots-pines, when used as nurses among oaks, have the effect of suddenly checking the wind by their massive foliage, and thereby preventing a free and equal current of air through the plantation, a point of the greatest importance to the health of the crop; while their heavy pendulous branches are continually being lashed against the oaks, much to the injury of the tops and branches of the latter. This has occurred, to a very great extent, wherever Scots-pines have been used as nurses; and I may remark that, during my surveys of plantations in various parts of the country, I invariably find oaks which have been reared among Scots-pines extremely deficient in sound lateral branches, and with only their tops remaining in a healthy condition. Examples of this are too plentiful, not only in the inclosures of the New Forest, but in those of the greater portion of the Royal forests in Hampshire. On the other hand, larch, from being of a rigid, open, and upright habit, when planted as a nurse among oaks, has the beneficial

beneficial effect of sifting the wind, and thereby softening its force; an effect which constitutes everything that can be desired in a tree as a nurse. In the old school of forestry, the object of nurses has been too much that of keeping the wind from blowing upon the permanent crop; and the result of this injudicious mode of nursing has been that of rearing up a class of plantations consisting of weakly and unhealthy trees, from which sound and valuable timber cannot be produced. This has been effected by an injudicious use of Scots-pines. The true and reasonable use of nurses is, that of sifting cutting winds, of softening their fall upon the permanent crop; a result which, as I have already mentioned, is most efficiently secured by the use of the larch.

In large pieces of plantation, such as those of the proposed inclosures of the New Forest, if Scots-pines be used as nurses, the result must undoubtedly ensue, that each inclosure will become a dense mass of evergreen foliage, impenetrable to every breeze conducive to the health of vegetation. In this condition, the young oaks would be found in such a state of suffocation that their healthy development could not go on, and many of them would, at an early stage, become stunted in growth. Besides this, in such a state of confined air as would be induced by so great a mass of Scots-pines, the young shoots of the oak-trees could not possibly receive sufficient air and sun to insure their being fully ripened in the autumn; and the result would be that a very great portion of these shoots would be destroyed by early frosts, and the trees thrown into an unhealthy state. Aware, therefore, from my own past experience, of these facts, with a view to secure a thorough circulation of air, and fully to admit the rays of the sun into the plantations, the influence of which can alone efficiently remove the cold and stagnating damps induced by early and late frosts, I again strongly recommend that larch should be used as nurses, instead of Scots-pines, in the planting of these proposed inclosures, admitting, however, a portion of the latter tree on any peculiarly-exposed point, where decided shelter is required, or on any knoll of very poor land, where the oak could not be expected to succeed profitably.

With reference to the planting of firs among oaks, Mr. Clutton next gives extracts from the Fourth and Fifth Reports of the late Commissioners of Woods, &c. These extracts have, in my opinion, no bearing whatever upon the subject under discussion; they simply advert to the general advantages of planting "firs" among oaks, with a view to produce shelter. What sort of "firs," is not stated. I do not dispute that "firs" of some description are absolutely necessary for the protection of young oak; but, the point under discussion, has special reference to whether larch or Scots-pines can be most advantageously used for the purpose; and, on this point, Mr. Clutton appears to have had recourse to Mr. John Lee.

The opinion of Mr. Lee coincides with that entertained by Mr. Clutton, at least in so far as the former gentleman is of opinion that "Scotch fir" is "the best nurse for oaks in all "low situations subject to late spring-frosts or early autumnal-frosts, as it affords," in his opinion, "a much better shelter and protection than larch."

In reference to this opinion of Mr. Lee, it will be sufficient for me to remark, that the producing of artificial shelter in "low situations subject to frosts," by the planting of "Scotch-fir," as recommended by Mr. Lee, is, in reality, an encouragement to the very state of atmosphere most conducive to frost-damp, and consequently to its being injurious to young trees. Why, I would ask, does frost not injure young trees, when found growing on the higher grounds of a plantation? The answer unquestionably is, because the action of the winds on the higher grounds does not admit of the frost-damp resting on the young shoots of the trees. On the other hand, I conceive there can be no doubt whatever as to the reason why the shoots of young trees are found injured by frosts in low-lying situations only, namely, the frost-damps being allowed to settle upon their shoots, the action of the winds in such situations, and in times of frost, not being generally strong enough to remove them. Though I conceive these plain facts cannot be controverted, Mr. Lee, in effect, recommends what would only aggravate the danger in the latter situations; he would impede the action of the winds, by increasing shelter, and thereby, of course, encourage the bad effects of frost. In order to obviate this state of atmosphere in low-lying situations, and to encourage, as much as possible, a free circulation of air among trees planted in them, I recommended, firstly, thorough drainage, and, secondly, the planting of larch, instead of Scots-pines. When land is thoroughly drained in low-lying situations, there is seldom much injury done by frost to young trees. The injury by frost here alleged by Mr. Lee, is almost wholly confined to plantations made on undrained land, and to this description of plantations it is probable Mr. Lee's experience has been confined.

Mr. Clutton next proceeds to state his views generally, regarding the suggestions contained in my three Reports on the subject of the New Forest. In respect to my Report of the 28th November 1852, which has reference to the general condition of the young plantations, and in which I assert that these are "to a great extent very inferior," he says, "I have already stated my opinion respecting these plantations, in the Report to the late "Board of Woods, dated 5th April 1849," and "they are in a very good and flourishing "condition;" and further, that "I do not consider that they have been, in any respect, over-"thinned for the growth of navy-timber. It is my belief, that any person acquainted with "the growth of oak-timber in the south of England for the navy, would see, that these plan-"tations are good; and I cannot account for Mr. Brown's different opinion."

In reply to these statements, I would remark, that if Mr. Clutton really considers that the plantations of the New Forest are "in a very good and flourishing condition," his criterion as to the health and growth of trees, and as to what their size ought to be at a given age, is very different from mine. It is difficult to understand on what data Mr. Clutton founds his opinion, when at fully 40 years of age the trees in question are found to measure only from five to eight inches diameter, at six feet from the ground; and I can only account for such

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an opinion being expressed, on the supposition that Mr. Clutton has had no opportunity of seeing what oaks might be, under ordinary good management, at such an age. In illustration of this, I may remark, that in the Highlands of Scotland, even in the mountainous counties of Ross and Inverness, I could point out oak-plantations of from 30 to 40 years' growth, in which the trees are much superior in health and size to those in the generality of the inclosures of the New Forest. In the inclosure of Hurst Hill, for example, the trees average only seven inches diameter, although 40 years old, while, in the county of Ross, I have found trees in plantations of the same age fully eight inches diameter. I can conceive only one inference to be drawn from this fact, and that the one I have advanced in my former reports, that this inferior condition of the crop in the New Forest is the inevitable result of former and long-continued neglect, or mismanagement; and I believe Mr. Clutton himself will find it difficult, on any other supposition, to explain how trees grown 500 miles farther north, and with almost every possible disadvantage of situation, soil, and climate, should be, on an average, far superior to those in question; for I can hardly suppose Mr. Clutton will venture to affirm that the soil and climate of the New Forest are less congenial to the oak than the Highlands of Scotland.

Mr. Clutton does not deny the fact as to the size of the trees; and yet he says, with respect to the local officers who have had the management of these woods, "Many of them have "had a very long experience on the subject of the best mode of rearing oak-timber, and I "respectfully submit that their opinions are entitled to consideration." From this, it must be inferred that, in rearing timber for the navy, Mr. Clutton is quite satisfied if the trees, at 40 years of age, measure only from five to eight inches diameter; and, at the same time, he holds up the system which has issued in such deterioration of the crop as "the best mode "of rearing oak-timber." It seems hardly necessary to refute such a statement more specifically; and, before dismissing this part of the subject, I shall only briefly advert to Mr. Clutton's alleged difficulty in accounting for my "different opinion." My opinion is, and I again repeat it, that these plantations "are to a great extent very inferior;" and my reason for affirming this is, that the oaks in the inclosures are generally small of their age, as compared with trees of the same age in plantations which have been well managed. This inferiority of the crop in these plantations, I assert, has been brought about by the neglect of thorough drainage in the soil; by Scots-pines having been planted as nurses (whereby the oaks have been unduly drawn up, and rendered weakly), and by the neglect of timely, judicious, and systematic thinning. Notwithstanding all these evident and unequivocal defects in the management of the plantations in the New Forest, Mr. Clutton infers that they have been well managed, that little drainage is necessary, and that Scots-pines should still be used. In short, Mr. Clutton recommends that the system of management under which this inferiority has arisen, and been continued, should still be persevered in, and should be even extended, by being made to embrace, with all its errors and defects, the new inclosures about to be formed. Should this advice be followed, should no superior system of management, in conformity with the improved state of forestry be introduced, not only will the deterioration of the crop in the present inclosures go on increasing, but an additional extent of 14,000 acres of inferior plantations, in the new inclosures, will be the certain result.

With regard to the planting in progress last autumn, in the inclosures of Frameheath and Broadley, Mr. Clutton remarks, "I find, from the deputy-surveyor, that there were some "Scotch firs in the nurseries which had grown to a larger size than would, by choice, be "planted out, which arose from the circumstance that delay had taken place before the "commencement of the plantations; but, as there was only a limited number of such larger "plants, it was considered better to plant them out, than to destroy them. There were no "smaller Scotch fir-plants in the nurseries; there was no intention of continuing to plant "fir of so large a size, nor has it been the practice before to do so."

I cannot well see how this explanation of the proceeding referred to, at all alters the case, or constitutes any apology for such a loose and reckless method of conducting so important an operation. The question is, why did the deputy-surveyor, in common justice to the interests of the Crown, presume to plant, under any circumstances, Scots-pines "which had "grown to a larger size than would, by choice, be planted out?" No experienced and judicious forester would have done, as Mr. Cumberbatch did in the case under notice, because he would be perfectly aware that the work would be a useless expenditure. No apology whatever can justify the conduct of a manager of an estate in planting trees which he knew could not be planted with reasonable hope of success. If Mr. Cumberbatch considered, as Mr. Clutton states, the Scots-pines in question too large for the purpose in view, he ought to have communicated with you, and given his conscientious opinion on the subject. That "it was considered better to plant them" (the Scots-pines) "out than to "destroy them," is an assertion I cannot understand, unless indeed it be admitted that Mr. Cumberbatch had a wish to keep his men in useless employment at the expense of the Crown. This indeed has been the result as regards the planting of the Scots-pines under consideration, and no apology of either the deputy-surveyor, or Mr. Clutton can be sufficient to justify the planting of Scots-pines, which it is admitted "had grown to a larger size than "would, by choice, be planted out."

Mr. Clutton goes on to give his opinion respecting the recommendations contained in my Report of the 18th December, 1852, and the first point he adverts to, has reference to the system of drainage which I have advised should be adopted for the improvement of the inclosures which may, in future years, be made in the New Forest. In the foregoing part of this Report, I have already stated my views so fully on this part of the subject, that I consider it unnecessary again to refer to it at any length; still, as Mr. Clutton advances

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some further objections to the system of drainage I have recommended, I may advert to a few of them. In further reference to the system of drainage, he says, "I should not advise "that this suggestion be adopted, as it would cause, upon the land naturally dry, a wholly "unnecessary expenditure, and, upon most of the land, a much greater expenditure than is "necessary for rearing oak-timber to the best advantage."

I am perfectly aware that the merits of the system of drainage recommended by me for the growth of timber, are not generally appreciated, nor understood, by any but those who can lay aside prejudice, and examine it in the light of vegetable physiology and chemistry; I am not, therefore, in the least surprised to find Mr. Clutton opposed to the system of thorough drainage for the growth of timber, seeing that the other views he advances, in respect to arboriculture, are based upon the most antiquated principles.

Less than 50 years ago, our forefathers thought themselves perfect masters of all the branches of rural economy, and would have considered any man a presumptuous fool who would have ventured to say that they were yet in ignorance almost of the first principles of their art, and that there was a possibility, by an improved system of culture, of making their land three times more productive than it then was. Even at the present time, there are not a few among us, greatly to the hindrance of improvement, who hold to the old track, and say that such and such operations are "wholly unnecessary." In respect to gardening and farming, such antiquated and sceptical opinions are now happily losing ground, because, in these departments of rural economy, unquestionable results as to produce are very soon brought to light by the aid of science; but, the relations of science to arboriculture, have not yet been so fully developed, simply because a much longer time is necessary to produce a crop of matured oak-trees than is required to produce a matured crop of turnips, or wheat. We are not, however, on that account, to suppose that the applications of science to arboriculture are not to be as satisfactory, in their results, as they have already proved in the case of gardening and farming. Thorough drainage, as now applied to agriculture, has made our fields productive of at least three times the amount of available food we used to have under a former system; and, speaking from experience, I am persuaded that any piece of land adapted to the growth of oak-timber, will, after thorough drainage, be productive of at least three times the amount of available timber it could possibly produce, if planted without being previously drained, even although it might appear naturally dry; while, at the same time, timber grown on land thoroughly drained, is invariably found of better quality than that grown on undrained land.

In reference to the same point, Mr. Clutton next states: "It is necessary to relieve the "land of superfluous water; and the question really is, to what extent this is required. "Several of the persons engaged in the formation and rearing of the plantations made in "compliance with the Act 48th of Geo. 3, c. 72 (1808), are in the forest, and some of them "still in the service of the Crown. They have seen the result of all the various plans both "of planting and ditching in this forest, and, although no doubt many of the experiments "(for at that period they were experiments) failed, they have obtained a most valuable stock "of experience, and it would appear to me more prudent to act according to such experience, "rather than upon the plan suggested."

No doubt "it is necessary to relieve the land of superfluous water;" but Mr. Clutton does not seem to be aware that drainage not only removes superfluous water, but also vastly improves the soil. It is evident, indeed, that Mr. Clutton has as yet formed no definite views as to drainage, for he does not even venture to give a decided opinion on the subject, but leaves it as he took it up; and, in fact, dismisses it altogether, by raising a question as to the extent of drainage required, and referring to the experience of some of the persons in the forest.

As to "the persons engaged in the formation and rearing of the plantations made in "compliance with," &c. who are "still in the service of the Crown," who "have seen the "result of all the various plans both of planting and ditching in this forest," who "have "obtained a most valuable stock of experience," and on whose experience Mr. Clutton recommends it would be "more prudent to act," than upon the plan suggested by me, I beg to remark, that I would have been inclined to pay all due deference to their experience, if I had found that it had been attended with happy results. But, when I find that the very parties referred to, have so little profited by the opportunities for gaining experience afforded them, that the crop under their charge proves to be in such a defective and inferior state as I assert it is, I am very little inclined to defer to an experience which has produced no better practical results.

Next, in reference to a considerable quantity of land which, it appears, has been drained during the past winter in Oakley and Parkhill inclosures, Mr. Clutton remarks, "The "drains are made, as nearly as possible, as recommended by Mr. Brown. Having examined "the land so drained, I should not advise that any further portion should be treated in this "manner; not only are the drains much closer than is necessary, but they are not of the "form found, by experience, to be best adapted for draining in this forest. Although only "made since November last, they already require cleaning out, as the earth from their sides "has crumbled in, filling up the bottom of the drains to a much greater extent than has "been the case with those which were, in previous years, made in the form which had been "found from experience to answer the best, namely, not so wide at the top, but wider at "the bottom, and consequently with more upright sides. Drains, with sloping sides, as "recommended by Mr. Brown, have before been tried in the New Forest, and found not to "answer, and, although in theory it appears reasonable that the more the sides of the drains "are sloped, the better they will stand, yet practically, in the New Forest soil and subsoil, "it is not so."

It would appear that Mr. Clutton's examination of the drains made in the inclosures

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referred to above, has led him only to condemn the system of drainage recommended by me, without having had the effect of drawing from him any direct statement as to what he would consider an improved method of the operation. This is, in fact, the usual way with inexperienced men in the case of their giving an opinion on any matter which they do not thoroughly understand, and in which they have not had sufficient practical experience to enable them to judge soundly. It is clearly to be inferred from Mr. Clutton's general statements, as set forth in his Report now under consideration, that he is prejudiced against thorough drainage for the growth of timber; and it is plain, therefore, that his opinion as to the details of the operation are entitled to little weight. Having already stated my views very fully on this subject, I shall only now very briefly advert to the distance between the drains, viz., from 40 to 50 feet, according as the land may be found retentive, or open, in the subsoil. These distances are, in my opinion, the most conducive to the securing of permanent benefit to the land by the operation. Were the drains made at distances much closer than 40 feet, there would certainly be incurred an unnecessary expenditure; and, were they made much wider than 50 feet, they would be, to a great extent, inoperative.

Mr. Clutton proceeds to advance certain objections to the form of the drains which I have recommended, all of which I conceive to be totally without foundation. During the last 12 years, I have had ample experience in the drainage of woodlands on all descriptions of soil, and on the same principle I have laid down for the improvement of the inclosures of the New Forest. I have had occasion to make drains of the same proportions as those objected to by Mr. Clutton, on the lightest and most friable of soils, and, on no occasion, have I found them to any particular extent liable to the objections alleged by him. The sides of all newly-made drains will more or less crumble in during the first year they are exposed to the weather, because the new soil thus exposed undergoes a chemical change by the action of the air; but this change gradually becomes less perceptible, till ultimately it renders the soil a proper bed for the growth of the natural grasses, and, under these, the sides of the drains are not influenced by the action of the weather. Now, this advantageous state of drains can never ensue where they are made with "upright sides," as recommended by Mr. Clutton; for, in such drains, every particle of sand, earth, or stones that may, by any cause, become detached from their sides, must of necessity be deposited in their bottoms, and thereby an accumulation of mud, and other rubbish, must take place to a very great extent, in a very short time, a result which cannot ensue to nearly the same extent in drains with sloping sides. Mr. Clutton indeed says that "drains with sloping sides, as recommended "by Mr. Brown, have before been tried in the New Forest, and found not to answer." But, if this is indeed the case, it would only to me be proof that they had not been efficiently made; not that upright drains are preferable. The fact is, that in all the Crown forests which I have surveyed, the same mode of antiquated drain-making has been pursued, namely, that with upright sides, as recommended by Mr. Clutton. The nature of the soil does not appear to have been at all taken into consideration in the matter, for I have found the same form in all the different soils of the different forests; and, in my opinion, the whole subject may be summed up by stating that the drain, with upright sides, has been that hitherto employed, and that there is a strong disposition to adhere to old customs, in defiance of modern improvements.

Mr. Clutton again adverts to the planting of Scots-pines in the inclosures.

In my Report of the 18th December 1852, I state that "in all the inclosures which have "been planted in the New Forest, since the year 1808, great error has been committed in "planting Scots pines as nurses." In reference to this statement, Mr. Clutton remarks, "I cannot agree in this opinion, as I have before shown, from the Reports of the late "Board of Woods, &c., that, at first, little or no Scotch-fir was planted with the oak in the "plantations; but, the oak never prospered properly till the Scotch-fir was more frequently "introduced into those plantations, and got up well among the oak, and the result is as fine "a crop of oak as can anywhere be found, taking soil and climate into consideration."

I have already, at length, given my reasons against the employment of the Scots-pine as a nurse to the oak. I only remark further on this extract from Mr. Clutton, that there can be no doubt whatever, a very large number of Scots-pines had been planted among the oaks long prior to the time Mr. Clutton asserts they were first extensively employed; and that these had been left, till a comparatively recent period, among the principal crop, to its serious and permanent injury. I ground my assertion of this on the following facts: first, the greater part of the oak-trees in all the inclosures, are of an excessively slender and drawn-up character, which circumstance, in respect to the trees, could not have taken place, unless they had been unduly confined among Scots-pines till a comparatively late stage of their growth; secondly, on asking the deputy-surveyor the reason why the oak-crop had been so much drawn up, he informed me, in the presence of Mr. Reid, his assistant, that, when he came to take the management of the forest, he found the greater part of the inclosures "a perfect "thicket of Scotch firs," and that he had every year sold as much as he could dispose of, in order to get them removed for the benefit of the oak-crop; and, thirdly, I saw some small portions of the inclosures which had not been relieved of the Scots-pine nurses, and, in those cases, the oaks and Scots-pines formed one dense impenetrable mass. These are indisputable facts, entirely at variance with Mr. Clutton's statement, "that at first, little or no Scotch "fir was planted with the oak in the plantations."

As regards Mr. Clutton's assertion, that these plantations exhibit "as fine a crop of oak "as can anywhere be found, taking soil and climate into consideration," I would appeal to any proprietor in the kingdom whether he would accept such an opinion as a sound one, when he saw the trees, on which this judgment was pronounced, averaging only from five to eight

eight inches diameter at six feet from the ground, as is the case with a great portion of the oak-crop in the inclosures of the New Forest; and I cannot understand on what principle the Crown should be expected to be satisfied with a degree of inferiority which any private proprietor would disclaim. I admit that climate and soil must be taken into due consideration; but, in the New Forest, these are, in my opinion, excellently adapted to the healthy and full growth of the oak. For the sake of comparison with the "result" referred to by Mr. Clutton, in respect to the oak-crop in the inclosures of the New Forest, I may remark that, on the estate of Arniston, which lies fully 400 miles to the north of the New Forest, we have oak-trees in plantations, only about 45 years planted, which average 11 inches diameter at six feet from the ground, although they are growing at an elevation of nearly 550 feet above the level of the sea, and exposed to the ungenial north and east winds of Scotland. I need, I trust, hardly say more to show that Mr. Clutton's judgment, as to the crop in the New Forest, is entitled to little consideration.

It may not be out of place here to remark that, if all the inclosures which have been planted in the New Forest since the year 1808, had been subjected to the system of drainage recommended by me, and, if larch had been used as nurses, instead of Scots-pines, the oak-crop would, at this period, have been of double the value it is now found; and I may also remark that, if the system of drainage, and the planting of larch as nurses, be adopted in the manner set forth by me, for the rearing of the oak-crop in all the inclosures which may be made in future years, the result will, no doubt, then be as fine a crop of oak as can anywhere be found.

Mr. Clutton proceeds to state, in reference to "the opinion expressed by the late Board "of Woods, &c.," that "although a certain quantity of larch has been planted in most of "the plantations made since 1808, yet it was found that, in the lower ground, the Scotch "fir, from not being deciduous, formed by far the best protection both against south-westerly "winds and early spring and autumnal-frosts, from which the young oaks will always be liable "to suffer in the New Forest. The climate of the district is peculiarly damp and humid."

I know that a very small and unimportant portion of larch has been planted in some of the plantations; and I am also aware that it would be found that in the damp and undrained lower ground, so long as it remained in this condition, the Scots-pine would grow more healthily than the larch; but I am perfectly satisfied that, on such low-lying undrained parts, the Scots-pines would form too decided a shelter, and would thereby be conducive to frost-damp and other conditions of atmosphere prejudicial to the healthy development of young oak-trees; and this is the very circumstance which has rendered many of these plantations so extremely inferior at the present time. Mr. Clutton states, as the reason for the employment of the Scots-pine, in preference to the larch, that the climate of the district is peculiarly damp and humid; but the means he would adopt, for remedying this alleged humidity, must have the directly opposite effect; for the close non-deciduous habit of the Scots-pine, must prevent that free circulation of air through the plantations by which alone this atmospheric humidity could be counteracted. If Mr. Clutton had studied the ordinary laws of nature, in respect to the states of soil and air most conducive to the healthy development of the oak, he would not have fallen into the error of stating that "the Scotch fir, "from not being deciduous, formed by far the best protection against early" (I suppose he must mean late spring-frosts, for early spring-frosts never hurt trees) "spring and autumnal frosts." The cause of late spring-frosts and early autumnal-frosts being injurious to trees, I have already explained in a foregoing part of this Report.

Mr. Clutton has fallen into a serious error in his judgment respecting the climate of the New Forest, when he states that "the young oaks will always be liable to suffer in the New "Forest." Even admitting that the climate were, in the present undrained and generally-neglected state of the forest, as uncongenial as he assumes it to be, there is not a cultivator of average intelligence in the kingdom who is not perfectly aware of the vast improvement, in climate, not less than in soil, which a well-arranged system of drainage will, with absolute certainty, effect, even in the most unfavourable situations; and there is nothing whatever about the circumstances, or situation of the New Forest, to make it an exception to this universal rule. What, I may ask, was the natural condition of the best corn-producing lands of the country, 150 years ago; they were, as they are yet, low lying; but, at that period, they were generally waterlogged, and, consequently, uncongenial to the health of either animals or plants; they were, in short, nurses to frost, damp and all unwholesome vapour. Since they have been drained, how different their climate, and how different the produce of their soil! These are plain facts, notorious to every one of ordinary intelligence; yet Mr. Clutton, by his opposition to draining, and by the way in which he speaks of the climate of the forest, as if it were permanently and hopelessly uncongenial, seems to ignore the possibility of any corresponding improvement in it by the application of similar means.

And here I may very briefly and once for all remark that, throughout all his observations on the subject of drainage, Mr. Clutton betrays an entire unconsciousness of any object sought after by draining, or any end attained by it, save the mere removal of water visibly stagnating on the surface. The amelioration of climate that invariably follows it, the cleansing, opening, and keeping warm the soil which it secures, the free admission of air to the roots of the trees it provides for, and the many other minor yet still important advantages that attend it, familiar as these results are to every cultivator of average intelligence, he completely ignores; and all he apparently would provide for is, the removal of positive marsh from the plantation.

The district of Hampshire, called the New Forest, is a portion of England yet remaining in its original state of comparative waste; and hence, as Mr. Clutton observes, "the climate "of the district is peculiarly damp and humid;" but, let it be drained systematically, and, according to the usual course of nature, we may rest satisfied that the operation will

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have the beneficial effect of removing dampness and humidity, and thereby rendering the climate wholesome and congenial to the rapid growth of oak-trees.

With respect to the opinions of Professor Lindley, Sir Joseph Paxton, and Sir William Hooker, relative to my Reports on the New Forest, Mr. Clutton says, that "if the eminent "persons referred to, had as intimate a knowledge of the New Forest, and had devoted as "much time to the investigation of the history of the old and young plantations in it, as I "have done during the last four years, they would have arrived at the same conclusion with "myself. Neither of the three gentlemen, to whom Mr. Brown's Report was referred, "appears to have much knowledge of this locality, which is a peculiar one."

I am fully satisfied that, on every one of the points under discussion, the three gentlemen named, would arrive at a very different conclusion from that of Mr. Clutton. "The eminent "persons referred to," are men of comprehensive and scientific minds, and are, therefore, well able to discern between the dogmatical views of the old school, and the sound principles on which the new one is established.

As to the locality of the New Forest being "a peculiar one," I have already stated my views on this point, and shown that its peculiarity is owing to its being an isolated portion of the original waste of England, which, however, is susceptible of great improvement, by a judicious and well-directed system of drainage.

Mr. Clutton next proceeds to give some comparative statements respecting the planting of larch and Scots-pines; and, in reference to this, he remarks:

"In our Report of the 5th of April 1849, we recommend that a larger quantity of larch "should be planted, as nurses; but this was not intended to exclude the Scotch fir. Since "that period, I have devoted much time to the investigation of all the circumstances bearing "upon the growing of oak-timber in this forest; and, from the great difficulty in finding a "sale for the thinnings of larch and Scotch fir, &c., I have come to the conclusion, that as "few of either larch or Scotch fir as will effectually serve the purpose of nurses for the "oak should be planted. The thinnings of oak are more valuable in this district than any "other tree."

In the First Report from the Select Committee on the Woods, Forests, &c., of the Crown, and in the Minutes of Evidence taken before Lord Duncan, on the 26th February 1849, it appears that the Chairman and the Earl of Lincoln put some questions to Mr. John Clutton respecting the planting of larch in the New Forest; the questions and answers I would draw attention to, are as follows:

"1649. Would you suggest that other varieties of timber should be planted besides "oak?—I think nothing would be so profitable as oak, intermixed with larch; I think larch, "instead of some portion of Scotch fir, would be more profitably planted; I would plant "Scotch firs at the outside, where they are very much exposed to the weather; and larch "inside, inasmuch as larch-thinning is more valuable than Scotch fir-thinning."

"1668. Do you approve of planting the Scotch fir with the oak?—In exposed situations, "I have no doubt that it is advantageous, if they are removed early; but, in warm situations, "I should say that the Scotch-fir is not necessary; that is my view of the matter."

"1669. Earl of *Lincoln.*] Do you think that in situations which are not exposed, larch "might be beneficially substituted in any plantation hereafter to be made, for the Scotch "fir, as a nurse for the young oak?—I think so; and I should plant less oak, and more "larch; the larch being much more valuable than the Scotch fir, it would produce a greater "profit."

"1670. You think the growth of the larch is better, inasmuch as it does not overshadow "the oak, and much sooner comes to perfection?—Yes; and, independently of that, I think "the deposit of the larch is much more valuable than of the Scotch fir in nourishing the "growth of the oak; the land is left in a much better state."

Now, I would remark that, with the exception of thorough drainage, these answers of Mr. Clutton's, which appear to have been the substance of his views in 1849, pretty nearly embody the plan I propose in respect to the planting of the new inclosures of the forest; and how he should now, in 1853, "have come to the conclusion, that as few of either larch "or Scotch fir as will effectually serve the purpose of nurses for the oak, should be planted," I cannot understand. He gives, indeed, as the result of his "investigation of all the cir-"cumstances bearing upon the growing of oak-timber in this forest," "the great difficulty "in finding a sale for the thinnings of larch and Scotch fir," and that "the thinnings of oak "are more valuable in this district than any other tree;" but this statement cannot well be correct, for, if we take into consideration the very low price now realized for bark, the great proportionate amount of labour and expense necessary to strip light and thin bark from very young oak-trees, and the very small profit derivable from small oak-thinnings, when converted into fagots or cordwood, it must appear evident that little advantage can be derived from such a course as Mr. Clutton now recommends, even in a pecuniary point of view; whereas, young larch-trees, if properly managed, will be suitable for props at the first course of thinning, and must, therefore, be very valuable, seeing that there is, in all parts of the country, an increasing demand for propwood.

I have adverted to these statements of Mr. Clutton's, as given before the Select Committee, &c. &c., simply with a view to show that it does not appear that he has any very decided views on the subject in question; or, at least, that his views are not based on any lengthened period of practical experience. On no other supposition, is it possible to understand how he should, in 1849, have advised to "plant less oak and more larch," and now, in 1853, recommend a course of procedure quite the opposite.

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Mr. Clutton proceeds: "I should, therefore, recommend that the proportion of half oak to "half nurses, hitherto adopted, should still be continued;" and, from this it is to be inferred, that he is wholly against any improvement in respect to the arrangement of the trees, and that he is decidedly of opinion that the proportions hitherto adopted are the most perfect possible. As I have, in my Report of the 18th December 1852, stated my views at length on this subject, I shall refrain from making any further remarks upon it.

I shall only advert to another statement of Mr. Clutton's, bearing upon the planting of Scots-pines in the new inclosures, which is this: "To exclude the Scotch fir, and substitute "the larch as a nurse to the extent recommended by Mr. Brown, would be unwise. The "greater part of the forest is much exposed to south-west winds, blowing directly off the "sea, and to cold damp air and frosts during a great portion of the year, and even in the "early part of summer. Of the effects of the frost, I have, on my recent survey, had proof, "having seen the young oak-shoots and leaves in some parts of the forest blackened and "killed by the frost."

It might be inferred from these statements, that "the greater part of the forest is" so "much "exposed to south-west winds blowing directly off the sea, and to cold damp air and frosts "during a great portion of the year," that anything useful in the shape of timber must not be expected; and yet Mr. Clutton decidedly states, that, in the inclosures, there is "as fine "a crop of oak as can anywhere be found." But admitting the full force of Mr. Clutton's arguments in respect to "wind," "cold damp air and frosts," under such a system of drainage as I have recommended, the cause of the latter will gradually be removed; and, in the absence of these, the south-west winds will become one chief element of health and food to the plantations.

I am perfectly aware that the climate of the New Forest is peculiarly damp and humid, and that it is subject to frosts, late in the spring and early in the autumn. It is in the knowledge of these peculiarities of climate that I have recommended a thorough system of drainage, and the planting of larch as nurses. The former will, to a very great degree, remove the cause of these cold damps and frosts, and the planting of larch-nurses will allow of a free circulation of wholesome air in all the plantations, and thus obviate that stagnation of atmosphere among the trees, which is a sure and fertile source of inferiority and disease. But, while I thus recommend the general employment of larch as nurses, it must be borne in mind, that I also recommend that Scots-pines "should be used, where decided shelter from "a particularly-exposed point is required, and on any knoll of very poor land in an inclosure "where the oak could not be expected to succeed profitably."

That "the young oak-shoots and leaves in some parts of the forest" were "blackened and "killed by the frost," is only a natural result, arising from the present wet and undrained condition of the forest-land. I am perfectly aware of this circumstance; and it is with a view to remove the cause of it, that I so strongly recommend thorough drainage. If this be done in the way suggested by me, there will very soon be no cause of complaint as to injury sustained by these damps and frosts, nor will "the young oak-shoots and leaves" be found "blackened and killed by the frost." The climate of the New Forest, as well as the greater part of the land there, is naturally well adapted to the healthy and full growth of valuable timber; but, before the capabilities of that soil and climate can be fully developed, all antiquated prejudices must be laid aside, and the trees cultivated on the most improved principles of the age.

Every landed estate, while in an unimproved condition, has its peculiarly bad climate, as well as its hurtful winds; but, as soon as an estate is improved by drainage, its climate becomes drier and more wholesome; and, consequently, the winds which proved hurtful while it remained unimproved, become, in its improved state, quite the opposite, and have a direct tendency to promote a full and healthy development of vegetation.

Mr. Clutton next makes a few statements respecting the arrangement of the plants over the ground, but as I have, in my Report of the 18th December 1852, illustrated my views fully by diagrams on this branch of the subject, it would, I think, be out of place to make any further remarks here; I beg, however, to direct your attention to the diagrams in the Report just referred to.

With regard to my estimate for inclosing, planting, &c., Mr. Clutton states, "I think "Mr. Brown's amounts will be sufficient, except that the estimated amount for draining, "and spreading stuff taken from drains, is too low, if Mr. Brown's system of draining be "adopted."

That my "estimated amount for draining, and spreading stuff taken from drains, is 'now' "too low," I readily admit. My estimate was made on the value of labour at the time (November 1852), but, since I wrote my Report on the subject of planting the proposed inclosures of the New Forest, the value of labour has risen at least one-fifth; consequently, it is reasonable to conclude that the cost of the work of drainage will now be proportionately high.

With regard to my Report of the 25th February 1853, which has reference to the system of nursery that I have recommended for the rearing of a supply of young trees for the planting of the proposed new inclosures, Mr. Clutton remarks, "I should not advise that an attempt "be made to raise larch from seed in the New Forest; but I should recommend that the "course found to be the most profitable by the principal nurserymen in the south of "England should be followed, namely, to procure seedlings from Scotland, where the damper "climate enables nurserymen to raise them with greater success."

Although Mr. Clutton does "not advise that an attempt be made to raise larch "from seed in the New Forest," I can see no practical reason that larch should not be as successfully raised from seed in the New Forest, as they are raised by nurserymen in Scotland.

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land. Nurserymen, in the south of England, are not generally so well acquainted with the art of rearing the fir-tribe from seed as those in Scotland are; they may, therefore, find it more profitable to buy their young plants from Scottish nurserymen. I have full confidence in stating that, under good management, larch may be raised from seed in the New Forest quite as successfully as it is in Scotland. Young larch-seedlings, conveyed in large packages from Scotland to the south of England, are generally so much injured by what is technically termed heating on the way, that a very great portion of the plants are found unfit for use. And, even under the most favourable circumstances of transit, the plants are often so much injured in health, that a diseased state is induced at an early stage, and they never afterwards grow with that health and vigour which is natural to the larch when reared from seed on the spot, where they can be lifted from the seed-beds and planted into nursery-lines, without any check whatever to the constitution of the plants. The great object in view is to have a stock of healthy plants; and, in order to this, the nursery-operations must be conducted on sound and natural principles; and these, I think, I have already laid down in my Report now under consideration. The same remarks are also applicable to the rearing of a supply of Scots-pines.

With regard to the existing nurseries, Mr. Clutton states, "Mr. Brown's remarks upon "the existing nurseries appear to me to imply neglect on the part of the officers of the "forest;" "all the nurseries which I have seen are regularly dug, and are as clean as could "be wished." "They are drained with open ditches, where required, but are generally situ- "ated on dry land. The plants are in a healthy state; and those at Linford Nursery, to "which Mr. Brown alludes, as being only nine inches high at five years old, were a few cut "off by hares; but the height is from nine to 36 inches, &c."

With reference to these statements, I have to remark that, in inspecting any piece of land in connexion with the cultivation of timber, I in all cases give my opinion without prejudice, and simply with a view to bringing out the true nature of the case; if, therefore, any remarks which I have made go to "imply neglect on the part of the officers of the forest," it has arisen from the truth of the case having been told. All the nurseries which Mr. Clutton saw may indeed have been "regularly dug," but even that may have been done in a way so as to induce unhealthiness in the young trees. That the work of digging and cleaning has been carelessly and injudiciously done, I was convinced when I saw the nurseries in question.

The observations that the nurseries are "drained with open ditches, where required," and "are generally situated on dry land," seem to me at once to indicate the very rude and anti- quated notion of nursery-culture entertained by Mr. Clutton. That gentleman is, I have no doubt, perfectly satisfied with nursery-ground "drained with open ditches, where required," for, it appears, that he is equally satisfied, if, for the growth of oak-timber, the land is drained "in places in which the water stagnates;" but these do not constitute drainage as now applied to arboriculture. In my Report, now under consideration, I state, "that no portion of these "nurseries has been drained;" and I here assert that that statement conveys the truth of the case. In the preparing of nursery-ground for the raising of young trees, drainage "with "open ditches, where required," is never now resorted to, but a complete and effective system of under-drainage, as stated in my Report, is considered indispensably necessary. Fifty years ago, Mr. Clutton's views in respect to nursery-culture, might have had some weight; but now that an improved mode of the operation has been adopted, they are worthless.

As to the plants being "in a healthy state," I may only remark, that Mr. Clutton's views, in respect to the healthy condition of trees at a given age, appear to be of a somewhat peculiar character. In my Report on the existing nurseries of the New Forest, I give the following statement: "That the health and size of the young trees in these nurseries are extremely "variable at the same age, is another proof that they are not in a condition for the rearing "of a profitable stock of young trees. From my own observation, while in the forest, as well "as from an examination of Mr. Cumberbatch's Report, I find that the oaks at present "existing in the nurseries of the New Forest do not average more than 21 inches in height, "at four years of age; this is very much below what they ought to be; in proof of which, "I may remark that, in our home-nurseries at Arniston, oaks of the same age average 36 "inches in height. The inferior condition of the crop of young oak-trees in the existing "nurseries of the New Forest has been induced, 1stly, by a want of drainage in the soil; "2dly, by the neglect of a proper system of rotation, in cropping; 3dly, by the want of a "judicious application of manure; and 4thly, by the want of a regular and well-directed "system of digging, hoeing, and otherwise keeping clean." These embrace my views as to the condition of the existing nurseries of the New Forest; to make any other remarks, therefore, on a subject so plain, would, in my opinion, be out of place.

There is, however, yet one other point referred to by Mr. Clutton, respecting the nursery-system which I have recommended, to which I must shortly advert, which is this: "The "rotation of crops and application of manure, do not seem to me to be requisite." I can well understand why this should seem so to Mr. Clutton, for his whole previous remarks suffi- ciently indicate that all his views regarding the cultivation of trees, are those of the old school. Every intelligent cultivator of the soil, whatever be the nature of the crop he rears, is now too well aware of the great advantages resulting from a well-directed system of rota- tion, to neglect such a wholesome and natural principle. And it would be as hopeless to expect, as Mr. Clutton from his depreciation of rotation and manuring would seem to do, that successive crops of young larches, or oaks, could be reared even in moderate health from the same ground, without regular rotation and manuring, as it would to look for a similar result with cereal, or any other agricultural crops. The same principles are applicable in an equal degree in both cases; and, if Mr. Clutton could succeed in rearing successive healthy

crops

crops of young trees from nursery-ground treated as he proposes, he would at once prove our entire systems of agriculture and horticulture to be based on fallacy.

Mr. Clutton concludes his Report by referring to a statement of mine, in respect to the grey lichen, and says, "'Mr. Brown remarks on the grey lichen, that it is never found thus "attacking young trees, at least to any considerable extent, except in cases where the trees "are growing in a soil overcharged with moisture;' but, Sir Joseph Paxton says, 'the "lichens also grow abundantly on badly-thinned plantations on very poor sandy lands.' "The fact being that they grow on trees in the New Forest standing on dry sandy land, "within the several plantations where there is no water in the soil, and where Mr. Brown "states they are overthinned."

I quite agree with Sir Joseph Paxton that "the lichens also grow abundantly on badly-"thinned plantations, on very poor sandy lands," but I must say not more abundantly than "in cases where the trees are growing in a soil overcharged with moisture." I am also perfectly aware "that they grow on trees in the New Forest standing on" what Mr. Clutton considers "dry sandy land within the several plantations, where," he says, "there is no "water in the soil;" but, it cannot be denied, by either Sir Joseph Paxton or Mr. Clutton, that the growth of the lichen, in the case of the trees in the New Forest, is chiefly attributable to excessive moisture being lodged in the greater part of all the soil composing this extensive district, which moisture is being continually evaporated from the surface (having no ground outlet of escape), and consequently producing, as Mr. Clutton observes, "cold "damp air and frosts, during a great portion of the year, and even in the early part of "summer." This excessive moisture, I maintain, induces the growth of lichens, even on trees growing on portions of the forest which may be said to be comparatively dry, because, even on such portions, the trees are, of course, situated within the influence of its effects. The damp and uncongenial air of the forest must, to a very great extent, naturally spread its pernicious effects to the best-managed plantations and farm-crops on private properties in the surrounding neighbourhood. Thus, the draining of this forest-land becomes a question of public interest; that, once accomplished, I am persuaded that the lichen will not attack the trees to any considerable extent.

I have, &c.

The Right Honourable T. F. Kennedy. (signed) *James Brown.*

No. 19.

My Lords, Office of Woods, &c. 24 September, 1853.

I BEG leave to transmit, for your Lordships' information, copy of a Report, dated the 19th instant, which I have received from Mr. Brown, in reply to the observations contained in Mr. Clutton's Report of the 21st June last, on the subject of the recent plantations and the establishment of nurseries in the New Forest, and I beg to acquaint your Lordships, at the same time, that Mr. Clutton's further Report, dated the 16th of August, of which I transmitted a copy to your Lordships on the 1st of September, is still under the consideration of Mr. Brown, and, as soon as his further and final Report shall be received, a copy shall be transmitted for your Lordships' information.

I have, &c.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury. (signed) *T. F. Kennedy.*

No. 20.

Sir, Arniston, 5 November, 1853.

I HAVE had the honour to receive your letter of the 1st of September, transmitting copy of a Report which has been received from Mr. Clutton, on my Report of the 31st of March, on the general subject of the New Forest; and requesting that I should furnish you with such observations on the same as I may wish to make.

In referring to the several branches of the Report about to be discussed, I propose to take them up in the same way as I have done those of Dean Forest and Highmeadow Woods; that is, in the order in which Mr. Clutton has arranged them. The first point referred to by him, and claiming discussion, is as follows: "Before proceeding further, I must call "attention to a general consideration which appears to have escaped Mr. Brown's notice." Having made this statement, Mr. Clutton goes on to show that "the planted land in the "New Forest comprises, in round numbers, 20,000 acres;" and says that "this land should, "by cutting timber and thinnings, be made to produce an income of about 8,000*l.* or 10,000*l.* "per annum;" and further, that "if more than this be taken from the forest, a permanent "income will not be maintained, but a steady return may be derived for some years, if the "cutting be limited to the amount above stated."

With regard to these statements, I have to remark, in the first place, that I do not think there are more than 8,000 acres of the open forest at present under timber: and I am of opinion,

 therefore,

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therefore, that the planted land in the New Forest comprises very nearly 19,439 acres only. This extent may be classed, according to age and value of available produce, thus:

				£.
Old timber on the open forest, and in the old plantations of King William's, &c. &c. -	10,460 acres, at 57 *l.* per acre			596,220
Young plantations made from 1808 to 1846 -	7,029	„	20 „	140,580
Recent inclosures - - - - - -	1,950	„	— „	—
	Acres 19,439			£. 736,800

Here, then, are firstly, 10,460 acres of old and matured woods, and secondly, 7,029 acres of young plantations, for the greater part of a productive character, the present saleable value of which, altogether, I set down at 736,800*l.* This extent of matured woods and young plantations, Mr. Clutton says, "should, by cutting timber and thinnings, be made to pro-"duce an income of about 8,000*l.* or 10,000*l.* per annum," and that "if more than this be "taken from the forest, a permanent income will not be maintained." This is an extraordinary assertion, and seems to me quite in keeping with the general character of all Mr. Clutton's statements upon the subject of woodlands. I presume that he means there should be produced an annual gross income "of about 8,000*l.* or 10,000*l.*;" at least, from his stating that he proposes a much more moderate fall than I do, as well as from the general tenor of his language, it seems impossible to put any other construction on his words. Taking this as his meaning, it is manifest he must intend there should be very little clear revenue to the Crown; that the annual produce of the forest should very little more than cover the expenditure necessary for maintaining its establishment. A glance over some of the forest accounts will place this in a conclusive light. These accounts of receipt and expenditure for the three years commencing 1st April 1850, and ending 31st March 1853, show the average annual expenditure for that period to have been 13,167*l.* 2*s.* 2*d.* In those years, there was a much higher amount received for produce than Mr. Clutton proposes should now be realized; consequently, to arrive at a just estimate of expenditure suitable to the income suggested by Mr. Clutton, a fair proportion must be drawn between the income and expenditure of these years. On applying this proportion to Mr. Clutton's proposal, I find that, if 10,000*l.* should be the income, as suggested by him, 6,500*l.* may be set down as the expenditure; thus leaving a net income of 3,500*l.* only, from 17,489 acres of woodland, all of it, with a trifling exception, of a productive character.

Taking 17,489 acres as a basis for further calculations, I find that Mr. Clutton proposes to give Government a clear rent of 4*s.* per acre for their land occupied by timber and plantations. If this is the only result Mr. Clutton is willing should be brought about, I am at a loss to understand why he should, in his Report of the 5th April 1849, have set down the land under these woods as being worth 10*s.* per acre. I would ask any private proprietor in the kingdom if he would be satisfied with such results as those proposed by Mr. Clutton, and if he could place any confidence in the judgment of one who would, at one period, say that his woods should pay him 10*s.* per acre, and, in four years afterwards, should assign 4*s.* as the highest net rental they could properly be made to yield.

On referring to Mr. Clutton's Report on the New Forest, dated the 5th April 1849, I find he states that, "after the first 15 years, these plantations will, in our opinion, pay all "expenses, and a rent from thinnings equal to the rental stated in our estimate upon an "average of years." Here we have Mr. Clutton's opinion in 1849, as to what these plantations should pay "after the first 15 years," that is, as I apprehend the statement, that, after the first 15 years of the ages of the plantations respectively, they will pay all expenses, and be productive of a rent from thinnings equal to 10*s.* per acre "upon an average of years."

Keeping this statement of Mr. Clutton's in view, then, I shall endeavour to show how it corresponds with the result he now proposes. There are, at present, in the New Forest 6,310 acres of plantations, above 20 years old; from these alone, therefore, conformably with Mr. Clutton's Report of 1849, there should now be derived an annual clear income of 3,155*l.*, a sum only 345*l.* short of the entire annual amount he now infers should be produced from both cuttings of old timber on the open forest-land and thinnings from young plantations. If Mr. Clutton's Report of 1849 is a faithful one, and at all to be relied on, and, if he has taken it as the basis of his calculations, in stating that the forest should now be made to produce "an income of about 8,000*l.* or 10,000*l.*" gross, then it must be understood that he does not now propose any considerable quantity of old timber should be cut from the open forest. We learn, however, from his Report of 1849, that he was then of opinion that a great part of the old timber was matured, and he also then recommended that much of it should be cleared, and young plantations made on the land it occupies; and, even from his Report of the 16th of August 1853, now under consideration, I plainly understand that he recommends to cut down a considerable quantity of old timber besides the thinnings from the young plantations. He asserts that, "if more than 8,000*l.* or 10,000*l.* be taken from the forest, a permanent income will not be maintained." It is difficult to see what he proposes to make of all the old timber, which, he says, "is left in a rugged and unproductive state," seeing

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seeing that by the estimates in his Report of 1849, there should be nearly as much income derived from the young plantations as makes up his proposed estimate of from 8,000*l.* to 10,000*l.* In short, Mr. Clutton's statements seem to me contradictory, and irreconcileable with each other; and I cannot but express my conviction that he has no practical knowledge of the subject he has taken up. I shall, however, at present refrain from making any further remarks upon these Reports of his, and shall proceed to lay before you my own views in respect to the income which may, under good management, be derived from the woods and plantations of the New Forest for the next 27 years.

In my Report, dated the 31st March 1853, I have stated, in reference to the annual income and expenditure of the New Forest, that "it is my intention to confine my views "exclusively to the clearing of the crop of matured timber now standing on the 2,460 acres "of old plantations, and on the 8,000 acres of open forest-land, to the annual average extent "of 330 acres, and to the annual thinning, draining, and otherwise putting into proper "condition one-fifth part of the 7,029 acres of plantations which have been made since "1808." With these views, I gave a detailed estimate of income and expenditure, of which the following is an extract:

	£.
Estimated produce - - - - - - - - - - - -	24,250
Estimated expenditure - - - - - - - - - - - -	8,624
Estimated net income - - - - - - - - - £.	15,626

The above estimate is based on the principle of clearing an annual average extent of 330 acres of old woods, at 57 *l.* per acre, equal to -	18,810
And on the produce derivable from the thinning of one-fifth part of the 7,029 acres of plantations, which have been made since 1808, equal to - - - - - - - - - - - - - - -	5,440
£.	24,250

Having given these details, in illustration of the principle on which my estimate for the New Forest is based, I now proceed to state more particularly than has yet been done, my views in respect to the capabilities of the crop to produce the income which I have assigned. My statements will embrace a period of 27 years from 1853, this being the period over which the cuttings of old timber will extend.

In the estimate given in this Report as to the present saleable value of the old timber and crop in the young plantations, I have said that there are 10,460 acres under old timber on the open forest and old plantations of King William's, &c. &c., and I have valued the crop, on this extent, at 596,220 *l.* In referring to this class of woods, in my Report of the 31st March 1853, I state that "they have become generally unhealthy, and are, for the greater "part, becoming what is called shaky in their timber, and fast deteriorating in value. I "have to recommend, therefore, as the most profitable method of dealing with the matured "crop of timber in all the above-named woods, that it should be all gradually cut down and "disposed of in such annual portions as may be considered advisable, with the view of "meeting with sales at an adequate price." My opinion, is that, on an average, the crop on 330 acres of these old woods may be disposed of annually; whereby, as I have already shown, 18,810 *l.* may be realized each year for a period of about 27 years, the balance of the estimated gross income of 24,250 *l.* being made up from the thinnings of the young plantations. It might at first appear, especially to an inexperienced and unpractical mind that, if the old timber shall be all cut down and disposed of in 27 years, the revenue from the forest will thereafter fall to a low sum, as its principal source will then be the young plantations alone; and this appears to be the conclusion arrived at by Mr. Clutton, when he says, "If "more than this" (8,000 *l.* or 10,000 *l.*) "be taken from the forest, a permanent income will "not be maintained." The following statement, setting forth the value of produce derivable from the 7,029 acres of young plantations referred to in this Report, will show what may reasonably be expected as revenue from them throughout the period of 27 years, at the end of which it is supposed that the old timber shall have been all cut down, and disposed of.

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ESTIMATE of the probable Average Yearly Income from Thinnings of 7,029 Acres of Plantations in the New Forest, made from 1808 to 1846, including Value of old Timber sold each Year, from 1853 to 1880, both inclusive.

YEARS.	Average Annual Value of Thinnings, from 7,029 Acres of Plantations.			Average Value of Timber, from 330 Acres of open Forest and old Plantations, cleared annually.			Gross Income from these each Year.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.
1853–54	5,440	–	–	18,810	–	–	24,250	–	–
1854–55	5,440	–	–	18,810	–	–	24,250	–	–
1855–56	5,440	–	–	18,810	–	–	24,250	–	–
1856–57	5,440	–	–	18,810	–	–	24,250	–	–
1857–58	5,440	–	–	18,810	–	–	24,250	–	–
1858–59	7,080	–	–	18,810	–	–	25,890	–	–
1859–60	7,080	–	–	18,810	–	–	25,890	–	–
1860–61	7,080	–	–	18,810	–	–	25,890	–	–
1861–62	7,080	–	–	18,810	–	–	25,890	–	–
1862–63	7,080	–	–	18,810	–	–	25,890	–	–
1863–64	9,460	–	–	18,810	–	–	28,270	–	–
1864–65	9,460	–	–	18,810	–	–	28,270	–	–
1865–66	9,460	–	–	18,810	–	–	28,270	–	–
1866–67	9,460	–	–	18,810	–	–	28,270	–	–
1867–68	9,460	–	–	18,810	–	–	28,270	–	–
1868–69	11,600	–	–	18,810	–	–	30,410	–	–
1869 70	11,600	–	–	18,810	–	–	30,410	–	–
1870–71	11,600	–	–	18,810	–	–	30,410	–	–
1871–72	11,600	–	–	18,810	–	–	30,410	–	–
1872–73	11,600	–	–	18,810	–	–	30,410	–	–
1873–74	15,400	–	–	18,810	–	–	34,210	–	–
1874–75	15,400	–	–	18,810	–	–	34,210	–	–
1875–76	15,400	–	–	18,810	–	–	34,210	–	–
1876–77	15,400	–	–	18,810	–	–	34,210	–	–
1877–78	15,400	–	–	18,810	–	–	34,210	–	–
1878–79	18,040	–	–	18,810	–	–	36,850	–	–
1879–80	18,040	–	–	18,810	–	–	36,850	–	–

In drawing up this statement, I have taken each plantation comprised in the 7,029 acres at its respective age, and carefully calculated the quantity of produce which may, under fair circumstances of management, be realized from it during each period of five years in the 27 years enumerated. I feel confidence in asserting that, even under ordinarily good management, the results set down against each year may be fully realized on an average of years. These remarks as to the data on which I have arrived at the average annual value of the produce from the 7,029 acres of young plantations, do not, of course, apply to the average value of timber from the 330 acres of open forest-land and old plantations, which it is proposed to clear annually. With regard to this class of produce, I have already shown that, at the present time, I value it at 596,220*l.* This amount will not, however, be fully realized, because, as I have stated in my Report of the 31st March 1853, "it is fast deteriorating in "value." In glancing over the statement just given, it will be seen that I propose there should, on an average, be 18,810*l.* drawn annually for produce of old timber. It appears, therefore that, although I have valued the old timber at 596,220*l.*, there will be only 507,870*l.* realized for it; showing a loss, arising from deterioration of the crop, equal to 88,350*l.* In other words, though I estimate the present value of the entire crop of old timber at 596,220*l.*, yet I assume that, from the deterioration in progress, only 507,870*l.* will be realized for it, with the period of cutting down and sales extended over 27 years; this latter sum, divided by that number of years, gives 18,810*l.* as the average yearly product, being the amount I have added to the receipts from the younger plantations in each respective year.

On referring to the statement setting forth the value of produce derivable from the 7,029 acres of young plantations, it will be observed that the revenue, which may reasonably be expected from these, rises steadily from 5,440*l.* in 1853-54, to 18,040*l.* during the five years commencing in 1878; thus making them, in 26 years hence, worth, in respect to income, considerably more than three times the amount they yield at first. This is no fanciful opinion, but is the result of careful calculations, based on the soundest principles as regards the periodical increase of timber in forest-trees, and as tested by my own experience and observations. Mr. Clutton appears entirely to ignore any such result; to overlook the fact that such results ensue in the ordinary course of nature; at least, I can in no other way account for his saying that "if more than this" (8,000*l.* or 10,000*l.*) "be taken from the "forest, a permanent income will not be maintained; but a steady return may be derived "for some years, if the cutting be limited to the amount above stated."

In Mr. Clutton's Report of the 5th of April 1849, to which I formerly adverted, he says that "after the first 15 years, these plantations will, in our opinion, pay all expenses, and a "rent

"rent from thinnings equal to the rental stated in our estimate upon an average of years;" this rental being 10*s.* per acre. The 6,310 acres of plantations, above 20 years old, at present in the forest should, therefore, now be yielding an annual clear income of 3,155*l.* It will not, I think, be unfair to assume that the gross annual sum he would propose to draw from these 6,310 acres, in order to realize a clear rent of 10*s.* per acre, or 3,155*l.* per annum, may be set down at 5,440*l.*, the gross sum I calculate should be drawn from them; allowing thus 2,385*l.* as expenses for labour and maintenance. If then he would, according to his views in 1849, draw from the young plantations a gross annual sum of 5,440*l.*, it follows that he would have to cut down old timber from the open forest-land, &c. &c. to the value annually of 4,560*l.*, in order to make good his proposed revenue of 10,000*l.* At the rate thus proposed by Mr. Clutton, the cutting down and disposing of the old timber would occupy fully 100 years; Mr. Clutton himself, be it remembered, stating, with regard to this timber, that it is already "left in a rugged and unproductive state." Little foresight is required to predict what the state of the forest would be, even in 60 years hence, were these suggestions of Mr. Clutton's to be adopted. If the old timber is, at the present time, "in a rugged and unpro-"ductive state," as he confesses it is, its condition then may be very easily conceived. In short, should Government act in the New Forest according to Mr. Clutton's suggestions, they would have, even 50 years hence, the greater portion of their old timber, which is even now admitted to be ripe and ready for the axe, crumbling into dust, and worthless. This would indeed entail a serious loss on the Crown; and, in addition to this, must be considered the very great additional loss that would be sustained by allowing the valuable land now occupied by the old timber to lie waste and unproductive, for periods increasing up to 100 years, the whole of which might, under the system I have recommended, be rendered valuable by being planted, and under a healthy and rapidly-progressing crop of young oak in 27 years hence. Mr. Clutton cannot have taken these views of this very important subject; for, if he had, he certainly would not have said "if more than 10,000*l.* be taken from the "forest, a permanent income will not be maintained."

These statements will, I trust, be sufficient to show that Mr. Clutton's views with regard to the old timber on the open forest-land have been, to say the least, formed after very little consideration of the circumstances of the case. Those he expresses as to the crop on the 7,029 acres of young plantations, seem to me equally defective; otherwise, he could hardly have said that "a steady return may be derived for some years, if the cutting be limited to "the amount" (10,000*l.*) "above stated." The only inference I can draw from this statement is, that his views, as to the capabilities of the New Forest, are of the narrowest kind; and that he is either unaware of, or has left out of consideration, the progressive increase in the value of plantations as they approach maturity.

In the statement which I have given as to the value of produce derivable from these young plantations, it will be observed that, in 10 years hence, that is, 1863-64, I propose there should be an average annual gross income from them of 9,460*l.*; being nearly as much as Mr. Clutton assumes should be annually derived from the produce of the whole forest. What is still more remarkable, and still more conclusively indicates the defectiveness of his views, is his stating that even this small sum of 10,000*l.* "may be derived for "some years" only.

I might go on to a much greater length on this subject, and point out many other equally erroneous views, implied or expressed, in the part of Mr. Clutton's Report now under notice; but, as this would only extend this Report to an undue length, without adding any very useful information, I shall refrain from pursuing the subject.

There is, however, one point to which I must still advert; namely, how the revenue from the forest will be affected after all the old timber shall have been cleared off the land, and disposed of.

On referring to the statement as to the value of produce derivable from the forest for the next 27 years, it will be observed that during the present year (1853) the gross income is set down at 24,250*l.*, and that it gradually rises till, in 1878, it stands for a time at 36,850*l.* This gradual increase in the value of the produce of the forest is not, let it be observed, effected by the sales of the old timber, but by the constant rise in the value of the crop on the 7,029 acres of plantations made between the years 1808 and 1846. Keeping this in view, then, it will next be observed that, according to the plan I have laid down, after the year 1880 all the old timber on the open forest-land, and in the inclosures of King William's, &c. &c., will have been cut down, and disposed of; consequently, at the end of that period, there would ensue a deficiency in the revenue to the extent of 18,810*l.* annually. This deficiency, however, is only an apparent one, at least to this full extent; for, in that statement, I have confined my calculations entirely to the sales of old timber, and of the produce from the plantations made between 1808 and 1846, and have left entirely out of account the 1,950 acres of inclosures made since 1846. These latter inclosures, if properly managed in the way advised in my Report respecting the recent plantations in the New Forest, will, by the time the old timber shall have been all removed, that is, when they shall be 30 years old, be capable of producing a gross annual income of 3,000*l.*; consequently, this is to be added to the 18,040*l.* given as the gross amount then derivable from the 7,029 acres of older plantations, making, from these sources alone, an annual gross revenue of 21,040*l.*

But, besides these sources of revenue existing at the end of the period when it is proposed the old timber shall all have been cut down, there will fall to be considered the 14,000 acres of inclosures yet to be planted. These may, at the rate of only 500 acres annually, be nearly all completed before the expiry of that time: consequently, the first planted of these, to the extent of 8,000 acres at least, should then be in a promising and productive state (if they shall be drained and planted in the way I have advised), and will add to the annual

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revenue already stated 6,000*l.* more, making a gross revenue derivable from the general plantations of the forest of 27,040*l.* in all. At the same time, if skilful and energetic management be applied, all these plantations will be rapidly and steadily rising in value, both in their available produce, in the form of thinnings, and in the permanent crop, for navy-timber, ultimately. These results, I am aware, will to many appear extraordinary, and they are in an especial degree at variance with Mr. Clutton's assertion, that "if more than "10,000*l.* annually be taken from the forest, a permanent income will not be maintained;" but, as they are based on my own past experience, I have full confidence in asserting their practicability.

With reference to my proposal of clearing, as soon as possible, the old timber from the open forest-land, and the inclosures of King William's, &c., Mr. Clutton goes on to remark, "It consequently becomes matter of grave importance that the forest should not be denuded "of its timber; but, if the large falls now being annually made are continued, the rights of "the Crown, in the event of a general inclosure, would be seriously curtailed, to say nothing "of the loss in price which would be sustained from having such a large quantity brought "into the market at once. I am quite aware that this is not touched upon in Mr. Brown's "Reports; but, as the Deer Removal Act has materially altered the relative position of "parties since we reported in 1849, I feel bound to mention it, on account of its great "importance to the interests of the Crown, at the present time."

In the foregoing part of this Report, I have stated that, in cutting down the old timber from the open forest-land, &c. &c. at the rate of 330 acres, and to the value of 18,810*l.* annually, there will be sustained, during the 27 years in which I propose it should be all cut down, a loss, through the gradual deterioration of the timber, equal to 88,350*l.*; thus showing, that even at the rate of clearing I have recommended, there cannot be prevented, in consequence of natural decay, a loss equal to fully one-seventh of the present value of the timber. Mr. Clutton cannot have taken this very important fact into consideration, else he would not have said that "the forest should not be denuded of its timber," or proposed such a tremendous augmentation of this inevitable deterioration as is involved in his scheme of extending the cutting down of the timber over 100 years. As to his assertion that, "if the large falls now being made are continued, the rights of the Crown, in the "event of a general inclosure, would be seriously curtailed," I conceive that it must have been made without adequate consideration, or adequate practical judgment, in respect to the whole circumstances of the case; that in making it, he has disregarded and left out of account the rapid deterioration going on in the old timber, admitted by himself to be fully matured, even now. The following considerations will place this point in the clearest light:—

The value of the rights of the commoners in the New Forest may, in my opinion, be set down, in round numbers, at 170,000*l.*, being somewhat more than the fourth of the present value of the entire crop of old timber on the 10,460 acres of open forest-land, &c. &c. Now, by the plan suggested by Mr. Clutton for the management of the old woods, and as is to be inferred from his general remarks, it appears that he would annually cut old timber only to the value of 4,560*l.*, being equal, according to my estimate of the value per acre, to the clearing of the crop from 80 acres annually. At the end of the period of 27 years, when I propose the old timber should be all cleared, and the land on which it stands nearly all re-planted, he would thus have no more than 2,060 acres cleared. Now, from calculations which I have made, based on the usual rate of deterioration in old timber, I find that, were the slow process of clearing, which Mr. Clutton has recommended to be put into operation, there would, at the end of 27 years, have accrued a loss equal to 187,761*l.*; thus proving that the result of Mr. Clutton's policy would be a loss to the Crown of 17,761*l.* more than the entire value of the rights of the commoners. The calculations on which these results are founded, have been made in conformity with the soundest principles of vegetable physiology, as applied to the deterioration of neglected timber on light soils; and, if their correctness be admitted, they seem to me conclusively to demonstrate the shortsightedness of the policy proposed by Mr. Clutton, and of the views on which that policy is founded.

Mr. Clutton, in asserting that "if the large falls now being annually made are continued, "the rights of the Crown, in the event of a general inclosure, would be seriously cur-"tailed," betrays a want of practical knowledge in forestry, and recommends a policy for the management of these woods which would ultimately be attended with vast loss. He recommends the retaining of the old timber, simply because he thinks that "in the event "of a general inclosure," a few more pounds would be handed to the Crown as its share of the value of the land, were the trees left rotting upon it; but he leaves out of consideration the immensely greater loss the Crown would, to a certainty, sustain in the deterioration of he timber by such a course.

In short, if Government should be pleased to act on Mr. Clutton's suggestions, and clear only 80 acres annually of the old timber, they must lay their account with sustaining a loss from the certain deterioration of the timber, amounting even in 27 years to 187,761*l.*, or 17,761*l.* more than the entire value of the rights of the commoners; and, after that period, the rate of deterioration would progress much more rapidly still, till ultimately what might remain of the timber would become so valueless that it would not yield sufficient to cover the expenses of its removal. Serious as such a prospect is, it is the certain result of the course suggested by Mr. Clutton. In order to obviate this, I again strongly recommend that the old timber should be cut down as rapidly as is consistent with a fair price being obtained for it. To the Crown, the rights of the commoners ought to be a secondary consideration, compared with the present value of its old wood, and the progressively deteriorating condition it is in. The sooner that Government can settle the general rights of the

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commoners in the New Forest, and the sooner that they can dispose of their old timber there, the more profitable will be the result.

As to Mr. Clutton's opinion in respect to "the loss in price," which he asserts "would "be sustained from having such a large quantity brought into the market at once," it will now, I think, from my former remarks, appear evident that the loss which is already being sustained from the deterioration of the timber, and which cannot possibly be prevented, is much greater than that which is likely to be sustained by bringing into the market at once the quantity recommended by me. Government have, in respect to the old timber in the New Forest, a commodity on hand which is rapidly perishing; if they choose to keep it on hand, as Mr. Clutton suggests, they must ultimately be great losers in the business; but, if they decide on disposing of it quickly at the current market-price, they will, without doubt, realize its value, and be fairly remunerated.

Mr. Clutton next refers to my remarks on the present condition of the old woods which were planted between the years 1700 and 1775. In adverting to these in my Report, I say that "the timber is generally of a tall and drawn-up character, and evidently has never "been attended to, and thinned, and, in consequence of this neglect, together with the "natural wetness of the soil, much of it is comparatively inferior, both in size and quality, "and a considerable portion of it is in a state of decay." With reference to these statements of mine, Mr. Clutton gives some extracts from the minutes of a meeting of the Commissioners held on the 14th day of April 1808, to prove that the plantations under notice had been thinned. In these extracts, it is stated, "that within the last 10 years (from 1798 "to 1808), when, for the first time, a regular plan of thinning them was established, and "which seems to me to have been judiciously executed ever since, the oaks there which "had been drawn up to slender shafts from their too great proximity, have, even at so great "a distance of time from their being planted, begun to swell considerably in circumference, "and may yet be expected at no very distant period to furnish a valuable supply of timber "for the navy."

From these minutes, it would indeed appear that, at one period, some trees had been taken out of the plantations under notice, but the statements do not prove that the timber is not of a tall and drawn-up character, nor that it has ever been regularly attended to, as regards thinning. The present condition of the trees in these plantations is a much better indication of the neglected state they have hitherto existed in, than any documents Mr. Clutton can produce; to any unprejudiced mind, an examination of the trees would at once bring full confirmation that they had never been regularly and systematically thinned. Mr. Clutton's views, in respect to thinning, are very different from mine, and, although I do not deny that some trees may have been taken out of these plantations, I still affirm that they have never been really cared for, in this respect. Thinning, as practised 50 years ago in the Royal forests, has very little correspondence indeed with thinning as now applied to the rearing of timber in well-managed plantations.

But, admitting fully the force of the statements brought out in these minutes of the meeting of the Commissioners, held on the 14th day of April 1808, these very statements prove that the plantations were thinned, for the first time, in 1798. It follows, therefore, that King William's Plantations were thinned, for the first time, when they were 98 years old, Phillipson's when they were 42 years of age, and Pitt's when they were 23 years old. I would fearlessly ask any landed-proprietor in the kingdom, if he would consider his oak-plantations had been attended to, when they had been allowed to stand unthinned till they were 98 and 42 years old respectively. The case of Pitt's Plantations, which it would appear were thinned, for the first time, when 23 years old, ought to have been a more hopeful one; but their present condition is sufficient proof that even they have never been really attended to. Thinning, as I am accustomed to employ the term, does not describe an irregular cutting of a few trees from a plantation after they have been ruined in health; it describes the carrying on a regular and systematic removal of all inferior trees in a plantation which are, at any given time, too close on their more valuable neighbours, and the presence of which would have a tendency to hinder the full development of the whole as an ultimate crop. At the present time, there are in these old woods, trees standing within a few feet of one another, while, on the other hand, there are many parts where the land, to a considerable extent, is entirely bare. If this state of the plantations is a sample of the system of thinning Mr. Clutton would recommend, it is certainly full time it was discarded.

In further referring to the point now under discussion, Mr. Clutton states, "These woods "have, from time to time since the dates of the foregoing papers, been thinned; and such "has been the consequent improvement, that a large quantity of navy-timber has been cut "from them, and, at the present moment, many hundred loads of fine navy-timber are ready "cut, lying for the inspection of the Admiralty-purveyor."

In reply to this, it will be sufficient for me to remark that, in the most neglected plantations, we invariably find that such trees as are of a healthy and robust habit of growth gain the ascendancy over their more weakly neighbours, and become timber of fair size; but then this takes place at the expense of the greater part of the crop, and this is the true nature of the case with respect to the timber found fit for navy-purposes in these woods. The proportion of timber in these woods, fit for the navy, is comparatively small, and consists entirely of such trees as had, at an early stage, gained the ascendancy over their more weakly neighbours. The fact that so little of the timber cut in these woods is generally found sufficient for navy-purposes, is of itself a sufficient proof that they have never been thinned, in the true sense of the word. Had they been so, they would now have been worth five times the amount per acre they are. Their present value is a true index of their past management.

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Mr. Clutton next goes on to give some statements, in reference to the present system of cutting down so much old timber in one year. Respecting this, he says:

"Since 1851, the attempt has been made to supply too large a fixed quantity of navy-timber in each year, and, as the rejections of the purveyor are very large, if all the inferior or second-class timber, standing amongst the trees directed to be marked for the navy, had been felled, a sale could not have been found for it, except at considerable abatement from its value.

"Much of the timber in every wood is, either from defects or from insufficient size, not suitable for the purposes of the navy. I find there is now lying cut in the forest about 3,000 loads of rejected navy and inferior timber for sale," and "Mr. Martin, of Lloyd's Registry, and Mr. Freebridge, the navy-purveyor, at a conference directed to take place with the deputy-surveyor, advised what class of trees should be selected, and were of opinion that it would be necessary to cut 4,500 loads, square measure, in order to furnish 2,000 loads such as Mr. Freebridge might accept, leaving 2,500 loads to be rejected as unfit for that purpose. There is, therefore, at this time, on the forest, about 5,500 loads of sale timber which will have to be sold to private parties. Nearly all the forest has necessarily been picked over to furnish the large quantity of navy-timber directed to be found, with a sufficient proportion of that particular class of timber called 'thickstuff,' which was desired. The inferior timber, intermixed with the navy-timber over so large a space, it would, as before stated, have been impossible prudently to fell in one year, and therefore our recommendation, of which Mr. Brown approves, cannot be carried out, unless the system respecting navy-timber be altered. Being fully impressed with the improvidence of selecting all the best timber from every wood, previously to the entire clearance of the whole of any district in the forest, I beg most respectfully to suggest that, in future, that the plan adopted by the late Board of Woods in their first fall of timber for the navy, after 1849, should be resumed, and that no more navy-timber should be supplied in any one year, than is found standing on such parts of the forest as it may be desirable wholly to clear; and the quantity should be regulated by the probable demand for sale-timber, as well as by the amount of stock on hand, rather than by first fixing the quantity of navy-timber that shall be supplied, or determining the extent of land that shall be cleared, and felling accordingly. No doubt, the course lately adopted, shows the forest as making a large present income, but this can last only for a few years."

As Mr. Clutton, in these statements, asserts that I approve of his general recommendations regarding the cutting of the old timber, I beg to advert to them at some length, in order to remove a misunderstanding which it appears has arisen, in this respect.

First, then, in my Report of the 31st March, 1853, I state that "another cause of the comparative inferiority of the old timber in these woods is, that there has of late been carried on a very injudicious system of felling from time to time, in all parts indiscriminately without reserve, large quantities of the best of the timber, as well as such trees as were considered defective; and, from the trees left after these cuttings down having formerly stood in an extremely confined state, and very close one to another, since they have been thus irregularly opened up, they have become generally unhealthy, and are, for the greater part, becoming what is called shaky in their timber, and fast deteriorating in value. I have to recommend, therefore, as the most profitable method of dealing with the matured crop of timber in all the above-named woods, that it should be all gradually cut down, &c.;" and "I would further advise, with regard to the crop thus recommended to be cut down, that the trees should not be picked out here and there, as has hitherto been the practice, but that a given extent of the ground should be annually cleared in a decided and systematic manner."

These statements embody my general views and recommendations respecting the cutting down and disposing of the old timber in the forest, which, as I formerly mentioned, is fast deteriorating in value; but they were not meant to apply to the cutting of timber for the navy. Regarding that class of timber, I was not called upon to give an opinion, and, in my general remarks respecting the old timber, I meant to except their application from the cutting of timber for the purposes of the navy. The following further extracts will make this evident.

Under the third head of my Report on the New Forest, just adverted to, I state, in reference to the generally-defective condition of the old timber: "Taking this generally defective and inferior quality of a very great portion of that timber into consideration, I am decidedly of opinion that, with the exception of what may be properly used for the purposes of the navy, the wisest policy that can be adopted with regard to it, is to sell it at such a moderate price as may ensure an extensive and ready demand. I give this opinion from a thorough conviction, that with respect to such of the timber in question as may not be considered fit for the navy-purposes, the sooner it can be disposed of before it become much more deteriorated in quality than it now is, the more profitable will be the ultimate results."

Under the fourth head of my Report, already adverted to, I further state, in respect to the annual value which may be realised from the plantations in the forest: "In drawing up the following statement, in reference to the annual income and expenditure for the New Forest, it is my intention to confine my views exclusively to the clearing of the crop of matured timber now standing on the 2,460 acres of old plantations, and on the 8,000 acres of open forest-land, to the annual average extent of 330 acres."

These extracts, I think, clearly set forth that, while I recommend generally the annual clearing of a given extent of the crop of old timber, I made no reference as to how the supply of timber for the navy was to be dealt with; that appeared to me a subject on which I was then not specially called to give an opinion; because, if I had, it might have been considered

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sidered superfluous and uncalled for. But now, under the nature of the present discussion, I find I am called upon to set right a misapprehension which Mr. Clutton has fallen into, when he infers that I approve of his recommendations respecting the supply of timber for the navy. What appears to me to have led Mr. Clutton into this misunderstanding, is my having said, "that there has of late been carried on a very injudicious system of felling, "from time to time, in all parts indiscriminately without reserve, large quantities of the best "of the timber," and "I would further advise, with regard to the crop thus recommended "to be cut down, that the trees should not be picked out, here and there, as has hitherto "been the practice." Now, regarding these statements, I would again observe, that I meant them to apply to the general practice which has been carried on, of cutting for general sale, "in all parts indiscriminately, large quantities of the best of the timber;" and in advising "that the trees should not be picked out, here and there, as has hitherto been the practice," I also meant the recommendation to apply to the cutting of timber for general public sales, without any intention of giving a specific opinion in respect to felling, for navy-purposes.

Having given these explanations relative to what appears to me the ground of Mr. Clutton's misapprehension of my meaning, I now come to advert to his general remarks on this subject.

He first states, that "much of the timber in every wood is, either from defects or from "insufficient size, not suitable for the purposes of the navy." That the condition of the crop of old timber in these woods is very defective, and that it is generally insufficient in size for navy-purposes, is perfectly correct; but I would remark, that such trees as are defective, or insufficient in size, should not be cut for navy-purposes; and the fact of there being so much as 5,500 loads of rejected navy and inferior timber lying in the forest for sale, is sufficient proof that no sound judgment has been exercised in selecting the trees for navy-purposes. No material defect can exist in the body of any tree, which may not, by careful observation, be detected outwardly by some peculiarity on the surface of the stem.

That "nearly all the forest has necessarily been picked over, to furnish the large quantity "of navy-timber directed to be found, with a sufficient proportion of that particular class of "timber called 'thickstuff,' which was desired," is another strong and conclusive proof that no right judgment has been exerted in the selection of the trees for the navy. Had an average amount of judgment and experience been brought to bear on this selection, and no trees taken out which were manifestly unsuitable, these woods would not be in the unthrifty condition in which they are now found. In short, the objection I would urge to the present mode of felling for the navy, is not that too large a proportion has been annually taken for that purpose, but that no attempt at selection has been made, before felling the trees, and, in consequence, large numbers have been cut which, it was manifest beforehand, were wholly unsuited to the purpose in view. To this cause, is to be ascribed the very large accumulation of inferior and defective timber, of which Mr. Clutton complains; had selection before felling been attempted, the proportion of such inferior timber cut down, within any one year, would at least have been kept within reasonable bounds.

As to what Mr. Clutton says of the impossibility of disposing, in any one year, of the large quantity of inferior wood felled along with the navy-timber, I have to remark that, had experienced judgment been used in the selection of navy-timber, very little inferior stuff would have been cut down along with it; and that so much of this has been hitherto intermixed with the navy-timber, in each year's fall, is entirely attributable to careless inexperienced selection.

Further, as to Mr. Clutton's "being fully impressed with the improvidence of selecting "all the best timber from every wood, previously to the entire clearance of the whole of any "district in the forest," and his suggestion, "that in future the plan adopted by the late "Board of Woods in their first fall of timber for the navy, after 1849, should be resumed, "and that no more navy-timber should be supplied in any one year than is found standing "on such parts of the forest as it may be desirable wholly to clear;" and that the "quantity "should be regulated by the probable demand for sale-timber, as well as by the amount of "stock on hand, rather than by first fixing the quantity of navy-timber that shall be supplied, or determining the extent of land that shall be cleared, and felling accordingly;" I beg to state, that I am fully impressed with the improvidence of felling, from time to time, in all parts indiscriminately without reserve, large quantities of the best of the timber; and it is under this impression that I recommend, "as the most profitable method of dealing with the "matured crop of timber in all these woods, that it should be all gradually cut down, &c.;" but this recommendation, let it be borne in mind, has special reference to the cutting of timber for common public sales only, and was not intended by me to apply to the supply of timber for the navy.

If, as Mr. Clutton suggests, "no more navy-timber should be supplied in any one year "than is found standing on such parts of the forest as it may be desirable wholly to clear," it would follow, that the supply of that description of timber would ultimately be small indeed. I have already referred to what appears to me Mr. Clutton proposes in the Report now under discussion, that only 80 acres annually should be cleared of the crop of old timber presently existing, thus making the clearance of the whole extend over a period of about 100 years. Should these suggestions be put into practice, the Crown would, from natural decay, lose the use of the greater part of the timber which is now sound, and which may, at the present date, or within a reasonable time from this, be made available for the purposes of the navy, long before 50 years had expired. I need hardly remark, how unprofitable such a course would be. Had Mr. Clutton been called on to lay down a mode of procedure, by which a supply of defective and decaying timber might be secured in future years, and the trees, now sound, allowed to become unavailable and nearly worthless, he could not have

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devised a better mode than is to be inferred from the suggestions embodied in his Report. In short, it is clearly understood, both by Mr. Clutton and myself, that there is, at present, in the old woods, and on the open forest-land, a great quantity of timber fast deteriorating in value, while there is very little of it in a growing and improving state. With respect to this timber, Mr. Clutton recommends generally, that only small portions should be cut annually. Were his suggestions, therefore, to be carried out, but little sound timber could be procured for the navy, and the Crown would ultimately be a great loser, from the rapidly deteriorating condition of the trees. On the other hand, I recommend, as the most profitable "method of dealing with the matured crop in all these woods, that it should be cut down in "annual portions of 330 acres," whereby the Crown may have the whole of the present crop disposed of within a period of 27 years, and thus a large proportion of this inevitable loss by deterioration be escaped.

Next, with reference to Mr. Clutton's assertion, "that the quantity should be regulated "by the probable demand for sale-timber, as well as by the amount of stock on hand, rather "than by first fixing the quantity of navy-timber that shall be supplied." It appears to me, that this is a very inexperienced view of the subject, and betrays great ignorance respecting the capabilities of the country for the consumption of timber. On no landed estate, with which I have had connexion in sales of timber, have I ever yet found the least difficulty in disposing of it in any quantity. No definite limits can be assigned to the demand for timber in this country. The true limitations to the successful disposing of it, arise from the want of experience and energy on the part of those who may be entrusted with the management of the business. If they are contented to allow their charge to lie easily upon them, and withhold the exertion which is necessary here, as in any other affair of life, they will undoubtedly find the demand very limited indeed; but, wherever as much energy is put forth, as any other business requires to its successful prosecution, the demand may very soon be made to exceed the supply.

Having made these general remarks on Mr. Clutton's statements, in reference to the old woods, &c., I now proceed to give my opinion respecting the mode which I would recommend should be adopted in felling timber from the old woods, for the supply of the navy. On this point, I have first to remark, that the oak generally arrives at maturity between 80 and 120 years, according as the soil on which it grows is found light or heavy, and also in proportion to the space of ground each tree may occupy. On light sandy soils, where the tree has not been attended to, and judiciously thinned, the timber will generally be found matured and in its soundest state, at about 80 years of age; whereas, on the same description of soil, where the trees have been properly treated, the timber will generally improve, in quality and size, till it is 100 years old. Again, on heavy clay soils, where the trees have not been properly attended to, they are found to improve in quality till 100 years old; and, if they have been judiciously managed, they will gain in value till the age of 120 years. I would also remark here that, on all soils of a light or sandy description, oak-timber begins to decay very soon after it has arrived at maturity, and, consequently, to deteriorate in quality and durability; and this result is especially evident, in cases where prematurity has been induced by neglect of thinning. On the other hand, on soils of a heavy or clay nature, oak-timber retains its soundness for a considerable time after reaching maturity, and does not so quickly deteriorate in quality as that which is situated on lighter soils. These are indisputable facts, brought out by close observation of the habits and peculiarities of the oak on different soils. I refer to them now, in order to illustrate why it is that the old timber in the New Forest, being situated on a soil of a generally light and sandy description, and never having received adequate attention as to thinning, &c., has generally reached maturity prematurely, and is now fast deteriorating in value; as is evident, from the present comparatively worthless and inferior condition of the timber, when cut down.

Taking the present condition of the old timber into consideration, therefore, I am of opinion that, in a very few years, the best of it, even such as may at present be available for the purposes of the navy, will be much deteriorated in quality, and, consequently, unfit for shipbuilding. Under this conviction, I would recommend, as the most profitable course, that all the sound timber in the forest should be made use of at as early a period as possible; for if it is not, and is cut only in small annual portions, as Mr. Clutton recommends, the result must be that the timber which is now valuable, and may at present be made use of for the navy, will, within a very short period, be so defective that it will be entirely rejected for that purpose.

This recommendation may seem at variance with the one I gave in my Report of the 31st of March 1853, when I state that "the trees should not be picked out here and there, as has "hitherto been the practice." This recommendation, I again repeat, was made entirely with a view to prevent the selecting the best of the trees for public sales, to secure that a proper and systematic course might, in future, be pursued for the general advantage of the forest, in respect to the profitable disposal of all the old timber in a decided and judicious manner, and in order to have the land now occupied by it put under a crop of young trees, from which a fair revenue may be derived as they progress in growth.

With reference to this subject, I may further remark, that it did not even occur to me that Government could think of leaving that portion of their timber which is at present matured and fit for the navy, to stand till it should become so defective that it could not be used for that purpose, although this is the recommendation urged by Mr. Clutton, and I took up the general subject on a distinct understanding that they were to use the best of their timber in the forest for navy-purposes, at as early a period as was convenient.

In making these general recommendations, in respect to navy-timber, I must, however, remark, that the injudicious system which has hitherto been pursued in selecting the timber for

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for the navy, should by all means be avoided in future; that, on no account, should trees be cut down which have the least chance of being rejected by the purveyor. The very best of the trees should alone, in the first place, be thus generally marked out for the navy; this I maintain can be done under experienced and well-directed observation, and that in such a judicious way as not in the least to injure the trees left standing as doubtful with regard to soundness, or as insufficient in size; any of these can, of course, be taken for navy-purposes, as they may be found suitable, during each successive fall, over a given extent of ground.

Regarding the cutting down of the old timber, Mr. Clutton next states, "we did not propose "wholly to denude the forest of its old timber, and I now recommend that, in all cases, a "sufficient number of both oak and beech-trees should be left in prominent positions, so as "not to wholly lay bare and disfigure the property." Mr. Clutton does not state whether he proposes to leave the old oaks and beeches inside a new inclosure, among a crop of young trees, or outside, on the open forest-land. If he mean the former, the system would be a most injudicious one, for no crop of young trees can possibly prosper in the neighbourhood of old ones. Sufficient evidence of this, is to be found in some of the inclosures of Dean Forest, where old beech-trees have been left, and where the young crop for a great distance around them is, in consequence, extremely inferior and unhealthy. If he mean the latter, the case is altogether different, and has no connexion whatever with the point under discussion; it has, in fact, to do exclusively with the question of landscape-beauty.

Mr. Clutton remarks, "with reference to the following, known as Pitt's Plantations," and called "Furzey Lawn, Raven's Nest, Oaknell, Coppice of Linwood, Pitt's, Sloden, and "Long Beech Hill, I recommend that they should not be wholly cleared away, as proposed "by Mr. Brown. They were planted so lately as 1775, and have not as yet arrived at "maturity. Although these plantations do not grow rapidly, they still make some progress, "and, as there is much land wholly bare, or covered with ripe inferior timber, it appears to me "very unwise to cut anything which is not in a state of deterioration, and, if there were no "other reason, it would, I submit, be sufficient that (for the reason already given) the existence "of the timber retains this land in the occupation of the Crown."

Mr. Clutton recommends not wholly to clear away the above-named plantations, because, as he asserts, "there is much land wholly bare, or covered with ripe inferior timber," and because it appears to him very unwise to cut "anything which is not in a state of deterioration." This appears to me singular reasoning, and I confess quite new to me. In the face of all this, he also asserts, that "although these plantations do not grow rapidly, they still make "some progress." These statements seem contradictory, and I can come to no other conclusion from them, than that he means to infer that the Crown should not have the advantage of any sound timber from these woods, but that such should be all allowed to stand till it becomes deteriorated and valueless. Such, it would appear, is Mr. Clutton's policy respecting the forest generally, and such statements require no further comment.

That "the existence of the timber retains this land in the occupation of the Crown," is true, but Mr. Clutton does not seem to have considered that the Crown will eventually lose much more through the deterioration of the timber on the land, than it can possibly gain by allowing the trees to stand, in order to secure occupation. On this subject, I have given my views fully, in the foregoing part of this Report.

With reference to my recommendations as to the drainage of the inclosures which have been planted between the years 1808 and 1830, Mr. Clutton remarks, "I believe the plan-"tations now under consideration are, for all practical or beneficial purposes for the growth "of oak-timber, amply drained, and that any outlay, in additional drainage, would be money "wasted. Land, to grow good navy oak-timber does not require to be drained, as suggested "by Mr. Brown."

Having in my Report, in reply to Mr. Clutton's on the subject of the Dean Forest, dated the 5th July 1853, as well as in my Report since that date, on the subject of the recent plantations and establishment of nurseries in the New Forest, set forth my views fully in respect to the great advantages resulting from drainage in plantations, when well directed, it would, I think, be a mere repeating of words to enter further into discussion on that point now. I may, however, briefly remark that, if the system of drainage which I have recommended for the improvement of the crop in the inclosures of the New Forest, should not be put into operation, a great diminution will certainly be sustained in the profitable results which I anticipate in respect to these woods, and which I have calculated upon in the statements I have given in the foregoing part of this Report.

Mr. Clutton next makes some remarks in reference to the size of the trees in the inclosures, and says, Mr. Brown states that the trees are, generally "speaking, comparatively "small for their age. This, in my judgment, is not the case;" and "In 1810, the acorns "having been found to have failed, the spaces were subsequently filled up with seedling-oaks. "It follows, therefore, that the first planting with acorns was, to the extent of about 80 per "cent., a failure, and this will account for the average diameter of the oaks, as stated by Mr. "Brown, being less than it would otherwise have been; nevertheless, the young trees are "very good, taking into consideration the soil and climate."

As I have in both my previous Reports clearly shown that Mr. Clutton's views in respect to the size of oak-trees at a given age are such as I should be sorry to hold, and having also, in these Reports, endeavoured to prove that the oak-trees, not only in the New Forest, but in the Royal Forests generally, are, on the whole, small for their age, it is not necessary that I should here enter again fully into this part of the subject; I must, however, advert a little to it, and in the first place remark that Mr. Clutton seems to me to betray his want of knowledge of the subject, when he asserts that "the young trees are very good, taking into "consideration the soil and climate." He does not deny that the trees in the inclosures of the

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the New Forest are the size I have said, viz., about eight inches diameter, at six feet from the ground, and, taking Mr. Clutton's own statement for their age, they must now be 42 years old. It follows, then, that Mr. Clutton thinks oak-trees of that age good, when found only eight inches diameter in the New Forest, and in the south of England.

Still further to illustrate Mr. Clutton's judgment as to the size of oak-trees at 42 years of age, I shall give a comparative example showing the value of the crop of young trees as at present found on an acre of the inclosures in the New Forest, and that of an acre of an oak-plantation which I inspected the other day in the county of Perth.

Taking the young plantations in the New Forest at 42 years of age, we shall assume there are, on an average, 170 trees on the acre, each eight inches diameter; it follows, then, that at that size, they will be found to contain pretty nearly three feet and a half of timber each, which, at 1 *s.* per foot, gives 29 *l.* 15 *s.* as the total value of the crop, per acre.

I proceed to compare this result, which Mr. Clutton infers is good for oak in the south of England, with one acre, taken without selection from the plantation referred to, an extensive one, only 41 years of age. I counted the trees on an acre, and found 170, with an average diameter of 11 inches, at six feet from the ground. These trees I found to contain fully seven feet each on an average, which, at 1 *s.* per foot gives 59 *l.* 10 *s.* as the value of the crop on an acre; exactly double that of the plantations in the New Forest, although these are under a much superior climate; and, in every respect, naturally better circumstanced.

The oak-plantations in the county of Perth, to which I have referred, have, for the last 15 years, been under such a system of management as I have recommended for the New Forest, and the result of that system is, double the value of crop at 41 years of age, as compared with the plantations of similar age in the New Forest. This example is, I think, sufficient to dispose of Mr. Clutton's assertions respecting the condition of the plantations under notice, and to render unnecessary further comment upon these.

With reference to my statement that, "in well-managed oak-plantations of 40 years' "standing, there should be only 200 trees per acre," Mr. Clutton remarks, "to cut out all "oaks, until there should remain only 200 per acre upon the whole of a plantation, simply "because it is 40 years old, though varied in its soil, its aspect, its original and subsequent "treatment, its exposure to winds and frosts, and the consequent inequality in the growth "and size of the trees, would indeed be thinning by theory."

In reply to this, I beg to observe that, in the generality of well-managed oak-plantations, which I have inspected, I have found the average number of trees on the acre pretty nearly 200. This result cannot be said to be brought out "simply because it is 40 years old." I stated the fact simply, because, under well-directed management, I have hitherto found that number of trees on an acre of plantations, of the age specified; and I defy Mr. Clutton to point out, in any part of England, a well-managed oak plantation of 40 years' standing in which there are more than 200 trees on the acre, and in which, at the same time, the trees can be found of a proportionate size of their age. I again assert that, in judiciously-planted oak-plantations, of 40 years' standing, if there are much more than 200 trees on the acre, they will be found too close, and in want of thinning, while, if there are much fewer than that number, it will be found that the crop has been overthinned. These are plain practical truths, which are admitted by every one at all conversant with forest-management. I am not in the least surprised, that they are not admitted by Mr. Clutton, for, in many ways, he has proved, at least to me, that little dependence is to be placed on his judgment on such matters.

As to the trees in a plantation being affected by variety of soil, aspect, original and subsequent treatment, exposure to winds, frosts, &c., as Mr. Clutton states, I freely admit that this is true, to a certain extent, but, under good management, such natural obstacles are easily overcome. Where soil is not suitable, oaks should not be planted; so also, where aspect is not favourable to their healthy development, they should not be planted. Where original and subsequent treatment has been unfavourable, the fault rests with the parties having the management of them; winds and frosts have little to do with the point in discussion. I do not think Mr. Clutton will venture to affirm that the winds and frosts of the New Forest are more severe than those of the north of Scotland; and yet I conceive I have proved that there are better oak-plantations there, at 41 years of age, than are to be found in the New Forest.

He next goes on to give an extract from my publication on trees (The Forester), which I do not see has any connexion with the subject under notice. The quotation in question, refers exclusively to the thinning of nurses from young hard-wooded trees, and has no reference whatever to the thinning of oak-plantations of 40 years' standing.

Reference is next made to my observations regarding the general drawn-up character of the oak-trees in the inclosures; but, as I have in my Report on the recent plantations and establishment of nurseries in the New Forest, of the 19th September 1853, stated very fully my views on this subject, it would be out of place to make any further remarks on it here.

I must, however, shortly advert to the following statements of Mr. Clutton's: "It is, I "think, a matter of regret, that Mr. Brown should have condemned all the past proceedings "with respect to these plantations, without remaining long enough in the forest to inform "himself on the subject. It is, however, known that he only spent six days in riding "through the 66,000 acres in the New Forest, some of the plantations being nearly 20 miles "apart. The weather being incessantly wet, and the whole country flooded at the time, it "was not possible for him to walk and examine the plantations, even if he had devoted to it "sufficient time."

I do not see that, in any case, it can be "matter of regret" to condemn what is wrong. In all my statements, in reference to "th epast proceedings with respect to these plantations," I have simply endeavoured to lay down the truth of the several cases, as I found them. I call on

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Mr. Clutton to show that any statement I have made is not fact; if he is unable to do so, I am at a loss to know on what grounds he considers it "matter of regret" that the truth has been told, at least, so far as the interests of Government are concerned. The weather was certainly very wet while I was in the forest, but I have been too much accustomed to survey plantations, in all kinds of weather, to be greatly distressed, or hindered, by rain or floods. Although I had remained a month in the forest, I cannot conceive I should have been able to report differently on it from what I have done. In plantations such as those in the New Forest, it is not necessary that a man should, in examining them, walk through every foot of them. Let it not be understood, however, that I did not walk through considerable portions of many of the inclosures; had Mr. Clutton been more particular in his inquiries at the officers of the forest, he would have ascertained to the contrary. In the greater number of the inclosures, I dismounted and walked into, and through the plantations, along with Mr. Cumberbatch, examining the state of the land and crop.

With regard to the young plantations at, and under, 10 years of age, Mr. Clutton urges respecting the one called "Buckford," that it is subject to frost, that the oaks did not prosper in it till the Scotch fir got up above them, that it will not be found necessary to devote any considerable extent to fir, as I have advised, and that no drainage is necessary.

As to the subjection to frost, alleged by Mr. Clutton, I may only advert to what I have already so frequently repeated in former Reports, that this is occasioned entirely by the neglect of sufficient drainage; and, that the oaks have not generally prospered, is also chiefly attributable to the same cause. As to the opinion that "in a few years, it will be seen that "there are few parts which it would be necessary to devote to fir," as I propose, I can only say, that if it is not given in utter disregard of the adaptation of the crop to the soil, it is founded on prejudice; the present condition of the oak-crop on poor land of similar quality, in many of the older inclosures, is sufficient evidence against the opinion here expressed, and shows the great loss the Crown now sustains from having so much land planted with a crop of trees, for the healthy growth of which it is quite unsuited. As to Mr. Clutton's opinion, that drainage is unnecessary in this inclosure, I have only to remark, in reference to this point, that having, in my Report of the 19th September 1853, already urged the necessity of the operation so much, and shown the advantages resulting from it, it is now useless to enter into further discussion on the subject.

These latter remarks also apply to the inclosure, named Pignal Hill. But, besides these, I have to advert to a statement which Mr. Clutton has made in reference to the crop in this inclosure; it is this: "The true cause of the oaks not having hitherto grown so fast as "could be wished, is, that they were planted too soon after the Scotch fir-nurses, and before "the latter had got to a sufficient height effectually to protect them from the south-west "wind, to which this inclosure is much exposed; it is an illustration of what may be ex-"pected, if planting oak and nurses of equal size and at the same time, as recommended by "Mr. Brown, be adopted in future inclosures."

In my Report of the 31st March, I state, in reference to the plantation now under notice, "The land here is a strong wet clay, which has been planted with oaks and pines in the same "manner as the other inclosures. It has been partially drained previously to planting, but, "as this operation has not been carried out to a sufficient degree, the greater part of the "trees are unhealthy." I again repeat, that want of drainage in a strong wet clay-soil is "the true cause of the oaks not having hitherto grown" healthily, not the planting of the oaks too soon after the Scotch fir, as Mr. Clutton asserts. I have, in a former Report, endeavoured to show, how obsolete his whole views are, in respect to the advantages of drainage, to the health of trees; and I consider that his opinion on this point is worthless. With reference to his assertion, that "the oaks were planted too soon after the Scots-pines, and "before the latter had got to a sufficient height effectually to protect them," such an opinion, seems to me, in keeping with the antiquated and prejudiced character of his whole views. I conceive it admits of no denial, or disproof, that the weakly and drawn-up character which the oaks in the New Forest so generally have assumed at an early stage of their growth, is due almost exclusively to the very mode of planting which Mr. Clutton would maintain, and which has been hitherto generally employed there, namely, the putting in the pine-nurses some years previous to the planting of oaks among them, whereby the latter trees, very soon after they were planted, have been stifled by the nurses, which had been so long established in the ground before them. On the other hand, I conceive that the one great cause of the superiority of oak-plantations in the county of Perth, to which I shortly before adverted, has been the different mode of planting there employed, namely, the putting in of the oaks at the same time with their nurses, in the manner I have recommended for the planting of the future inclosures of the forest. The fallacy of Mr. Clutton's arguments, seems exclusively shown by a comparison of the results of the system he endeavours to maintain, as exhibited in the state of the crop in the New Forest, with the results of the system which I recommend, as presented by the examples to which I have adverted, and which I am prepared to point out, when called upon.

In reference to the inclosures named Clumber, Ferney Knapp, Stubby Copse, King's Hat, Foxhunting, Little Foxhunting, Linford Great, and Linford Small, I state that "they "are, in every respect, similar to the one just discussed (Hasley), and the remarks upon it "are equally applicable to these." Regarding this statement, Mr. Clutton remarks, "I am "assured by the forest-officers, who believe they accompanied Mr. Brown during the whole "of his survey, that he did not inspect Ferney Knapp, King's Hat, Foxhunting, or Little "Foxhunting; I think, had he done so, he would scarcely have compared them to Hasley "inclosure."

That I did not inspect these inclosures, is true, but, if it is not true that they are similar in

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character to Hasley inclosure, the mistake is attributable to Mr. Cumberbatch, the deputy-surveyor. While I inspected the plantations in the New Forest, my duties on the estate of Arniston admitted of my devoting only a limited time to that purpose. During my survey of the forest, however, I examined at least nineteen-twentieths of the whole ground; these above-named extending altogether to 176 acres only. After I had spent the limited time I had to devote to the inspection of the forest, I stated to Mr. Cumberbatch that, in order to visit the inclosures named, they lying at a considerable distance from one another, it would be requisite for me to spend another day in the forest. He replied, that he did not consider my visiting them as of any importance, for they were, in every respect, very similar to the one called Hasley; as it was to be presumed, he was acquainted with their character, I took it for granted that he gave me a fair statement, and embodied it in my Report, accordingly.

With regard to my remarks on the system of management which I propose should be adopted for the future improvement of the plantations in the New Forest, Mr. Clutton states:

"I confess, I should like to see the plantations referred to, and compared by Mr. Brown "with these in the New Forest as being superior."

Had Mr. Clutton, when he of late clandestinely visited the plantations on the estate of Arniston, instead of secretly making inquiries respecting me, not only from our labouring men in the woods, but from poor labourers breaking stones on the highways, called upon me in such an open and undisguised way as became the character of a professional gentleman, I would have been very happy to have shown him "the plantations referred to;" but, as he did not choose to call upon me, I can only conclude that, although he has in his Report stated that he "should like to see the plantations referred to," it does not necessarily follow that he really has a wish to see plantations superior to those in the New Forest.

He goes on to state further, "As I have already shown, by reference to reports and "documents, that many of the assumptions and statements made in the foregoing part of "Mr. Brown's Report are inaccurate, and are not founded on facts, I respectfully beg to "submit that the conclusions at which he has arrived are equally incorrect; nor do "Mr. Brown's remarks prove mismanagement, as I think it should have been proved, before "condemning nearly everything, as he has done."

As I have already discussed the references made by Mr. Clutton "to reports and docu-"ments," it would be superfluous to enter further into them. I must, however, observe, that no statement which I have made in any of my reports can be said to be an assumption, incorrect, or not founded upon facts; on the contrary, I think I have clearly proved, to any dispassionate mind, that the terms applied by Mr. Clutton to my statements, do most correctly describe his own. If there has been, as Mr. Clutton maintains, nothing of the mismanagement I have endeavoured to point out, it becomes a singular and inexplicable problem how the crop in the New Forest, with all its advantages of soil and climate, should be of character so inferior as I have shown it to be, as compared with plantations in the unfavourable soil and climate of Scotland; that these New Forest inclosures should exhibit plantations at 42 years of age of a value per acre only half that of others in Perthshire at the same age. I can conceive only one construction that can be put upon these facts, namely, that the crop in the New Forest has been disgracefully mismanaged; and Mr. Clutton's resolute defence of the mode of management which has brought about this inferiority, in defiance of these facts, I can assign alone either to ignorance or to prejudice, and a desire to maintain the antiquated system of the forest.

In further referring to this subject, Mr. Clutton says, "One word I must say further, as "respects drainage. I am informed, as already stated, that Mr. Brown was in the forest "during the wettest season known there for many years, and as I understand that he rode "in the tracts during the time, and did not walk or ride across any of the drained land, "so as properly to inspect it, I scarcely think his experience is sufficient to warrant the "adoption of his suggestions as regards additional drainage."

That the weather was very wet, while I was in the forest, is true, but that I did not walk across any of the drained land, is not true; for, in many of the inclosures, as I have already remarked, I gave the horse on which I rode to Mr. Reed, the assistant deputy-surveyor, and walked with Mr. Cumberbatch, not only across the drained land, but across the undrained, also. If my own declaration as to this is not sufficient, both the deputy-surveyors whose names I have mentioned can further attest it. But, whether the weather was very dry or very wet, or whether I walked or rode during the time of my survey, could not in the least influence my judgment in respect to the nature of the land and its crop, although it would seem that Mr. Clutton's judgment on the points in question would be greatly guided by the circumstances referred to. In examining woodlands, I can at once distinguish whether the land is naturally wet or dry, and, consequently, whether it requires draining or not, by the kinds and condition of the plants growing naturally on its surface. No man of ordinary intelligence in rural affairs, riding along a road with his eyes open, if he saw that an adjoining field was overgrown with rushes, and the rough grasses known to delight in moisture, would for a moment conceive that it was dry, and had no need of draining. Mr. Clutton, however, seems to think differently; to conceive that no draining is required on land presenting such a natural crop. From the general tenor of his statement, he seems to have no idea whatever of what is familiar to every ploughman and working-gardener, that the natural condition of land may be distinguished by a glance of the eye at the herbage on its surface.

With these plain facts in view, I am at a loss to understand what amount, or kind of experience, Mr. Clutton would require, to justify me in recommending the system of drainage I have suggested to be applied to land so palpably and self-evidently requiring it. In a former

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former Report, however, I have already shown that Mr. Clutton, in all his observations on this subject, betrays an entire unconsciousness of any object sought after by drainage, or any end attained by it, save the mere removal of water visibly stagnating on the surface. The amelioration of climate that invariably follows it, the cleansing, opening, and keeping warm, the soil which it secures, the free admission of air to the roots of the trees it provides for, and the many other minor yet still important advantages that attend it, familiar as these results are to every cultivator of average intelligence, he completely ignores; and all he apparently would provide for is, the removal of positive marsh from the plantations. I cannot, therefore, conceive that much importance attaches to his recommendations, or dissuasions on the subject.

Regarding the introduction of sawing-power by steam-machinery, for the conversion and manufacture of all timber, except that suitable for the Royal Navy, and such other timber as may be too large for the circular-saw, Mr. Clutton remarks, "Mr. Brown is mistaken "in supposing that the greater number of the parties, who at present buy wood in the New "Forest, are small retailers, and that they sell timber in a round state. The fact is, that "these parties are extensive timber-merchants residing in London, Southampton, Portsmouth, "Salisbury, Botley, Redbridge, Lymington, and other towns;" and "a steam-engine in the "New Forest would be of no use to them, as their customers prefer having the timber in "the rough or hewn state, and converting it, where shipbuilders find it can be done to the "best advantage, namely, in their own yards," &c. &c.

From these statements, it is plain that Mr. Clutton has misunderstood the meaning of my Report in respect to the use of the sawing-power for the New Forest. I did not mean to imply that the sawing-power which I recommended would be much sought after for the conversion of shipbuilders' timber, as Mr. Clutton supposes. In my Report, of the 31st March 1853, I distinctly state, "I am decidedly of opinion that, there being so large a "quantity of rough, defective, and decaying timber in this forest, it should be disposed of "within as short a time as may be consistent with judicious management; and that, with a "view to this, every means must be used to facilitate its sale by conversion and manufac-"ture, in order to meet the demands of the public; and I am not aware of any means "which could be adopted more likely to prove effective and satisfactory in its results, than "that of the introduction of a sawing-power with steam-machinery." From these state-ments it is, I think, distinctly to be understood that I meant the application of the sawing-power to rough, defective, and decaying timber only; no timber of these descriptions being ever used for shipbuilding purposes; timber, suitable for these purposes can, at all times, be readily sold at fair prices.

From the entire manner in which Mr. Clutton has referred to my recommendation regarding the application of sawing-power for the timber in the New Forest, it might be supposed that there is no inferior timber to be found in it, and that every tree is suitable for shipbuilding. The very contrary is really the case; the greater portion of the crop of old timber is rough, defective, extremely inferior, and quite unfit for shipbuilders. Mr. Clutton will hardly venture to affirm that there is not a very large portion of the crop of oak much too small in size, and inferior in quality, for shipbuilding; nor can he well overlook the fact, that a large amount of the entire crop consists of rough, and comparatively worthless, beech-trees. From his whole remarks on the subject of the sawing-power, however, he would appear completely to ignore these facts; his argument against its introduction, rests entirely on the assumption that the crop in question consists exclusively of such superior and large-sized timber as is suitable for the shipbuilder, and as will be sought after, and purchased by him. In short, I can characterize his observations on this part o the subject in no other terms than as deceptive, and qualified to mislead any one unacquainted with the facts of the case; and I am at a loss to understand from what motives, except a strong desire to retain all things as they are, Mr. Clutton should oppose a scheme calculated to be of vast advantage to the interests of the Crown, on the ground of statements which involve at least most important suppressions of the truth. For, although a very great portion of the old crop which it is proposed to clear in the New Forest consists of extremely rough and inferior beech, with much defective oak of inferior size also; though he himself, in other parts of his Report, betrays his perfect consciousness of this, and though, in the very section of my Report on which he is animadverting, I distinctly state this as the class of produce to which I expect the sawing-power to be peculiarly available, he does not even hint that there is such a class of produce to dispose of.

I have already, in my Report on Dean Forest of the 5th July, 1853, stated my views so fully regarding the general advantages derivable from the well-directed use of sawing-power, that it is unnecessary I should again enter into specific detail on these. I must, however, advert to one other point in Mr. Clutton's statements on this part of the subject; it is this: "As I stated in my Report on Dean Forest, I could not recommend the Crown to embark "in the speculation of a steam-engine. The conversion of the timber, and the providing of "machinery for that purpose, are better left to the merchants and tradesmen."

It appears plain to me that Mr. Clutton "cannot recommend the Crown to embark in the "speculation of a steam-engine," because he has not had experience on the subject sufficient to enable him to see the advantages of the scheme, and because throughout he betrays, at least, indifference to the Crown reaping the usual advantages of an improved system of forest-management, and perfect willingness that Government should allow the produce of their forests to deteriorate, as it has hitherto been allowed to do. It is worthy of remark, that Mr. Clutton, in stating that "the conversion of the timber, and the providing of ma-"chinery for that purpose, are better left to the merchants and tradesmen," betrays a con-sciousness that merchants and tradesmen do find it advantageous to convert timber by

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machinery; yet, he appears unwilling that the Crown should reap any of those advantages which he thus recognises as realized by other parties.

Respecting my statements as to the annual value which may, under good management, be realized from the plantations in the New Forest, Mr. Clutton remarks, "If an inflexible "rule as to the extent to be cleared were adopted, as proposed, the revenue would not be "regular for five years, as stated by Mr. Brown, but would vary very much, according to "the quality of timber on the 330 acres which might be selected to be cleared in each "year. Some acres of old wood in the forest, are worth at least three times as much as "others, and, consequently, the receipts would vary, in proportion. I should advise a much "more moderate fall of timber per annum."

With reference to this, I beg to say that, when I wrote my Report, of the 31st March 1853, I was as well aware as Mr. Clutton can possibly be, that "some acres of old wood in "the forest are worth at least three times as much as others," and I drew up my estimate as to income, with that knowledge. Here, also, Mr. Clutton appears to misunderstand, or misrepresent, my meaning. I do not propose that "an inflexible rule as to the extent to be "cleared" annually, should be adopted; I distinctly state that I would recommend to clear the crop of old wood "to the annual average extent of 330 acres;" that is, in one year 200 acres may be found sufficient from which to realize the sum of 18,810 *l.*, as proposed; while, in a following year, it may require 460 acres to realize that amount; and still, taking the two years together, it would follow that, on the average, only 330 acres would be cleared. This is the only meaning the words of my Report will legitimately bear, although Mr. Clutton appears not to be aware of the usual application of the word "average."

As to Mr. Clutton's proposal of "a much more moderate fall of timber per annum," I have already stated my views fully at the commencement of this Report.

He next goes on to show that I have omitted some items from my estimate of expenditure, relating chiefly to the establishment of keepers and game, and amounting, in all, to 2,380 *l.* 18 *s.*; and he remarks that the "items detailed are necessary, and should not have "been omitted." In answer, it may be sufficient for me to state, that I was not called upon to take the subject of keepers and game into consideration at all; neither was an opinion required from me on it. On the contrary, I was requested to withdraw my attention from the subject of keepers and game, &c., altogether, as the following quotation from the instructions to me, of the 11th November 1852, respecting my visit to the New Forest, will show:

"You will find, on proceeding to the New Forest, that it is a vast territory; and it can "scarcely fail to happen that you should be perplexed, during your short visit, by its vast-"ness, and by the complicated circumstances of its condition under the forest-law, and its "connexion with the real and assumed rights of commoners; but from all these matters, I am "desirous to disembarrass you, that you should withdraw your attention from them as "much as you may find convenient, and look at, and consider, the interests of the Crown as "regards the occupation of the ground by old and young trees, whether inclosed or unin-"closed, and the new inclosures in progress of being made; also, the general and particular "system of management, with reference to profit and economy, and, finally, the esta-"blishment.

"As regards the establishment, it will be desirable that you should withdraw your "attention entirely from the subject of deer and game in the forest, and the establishment "of keepers having relation to the deer and game. That is a subject distinct from the "subject of timber and plantations, and it is best that you should not embarrass yourself "by considering it, but restrict your attention to the subject as it would present itself, as if "the establishment of keepers did not exist."

With these instructions before me, I, of course, paid no particular attention to the subject of keepers, but confined my views entirely to the interests of the Crown as regards the occupation of the ground by old and young trees, and to the new inclosures in progress of being made, and also to the general and particular system of management with reference to profit and economy. The estimate, therefore, which I have given, relative to the expenditure I consider ample for all necessary purposes, in connexion with the management of the woodlands, on the principle set forth in my Report.

In referring to my recommendations as to the establishment which should be maintained for conducting, with all due economy, the affairs of these woodlands, Mr. Clutton remarks, "I think the deputy-surveyor, who is much more intimately acquainted with the localities "than either myself or Mr. Brown, could state more satisfactorily how many woodmen "would be necessary."

To this, I have to reply that, while I was in the forest, I made inquiry at the deputy-surveyor respecting the number of able woodmen he thought would be sufficient, in every respect, to manage the woodlands under him. In answer to my inquiry, he stated, that many of his present establishment of woodmen were unfit for duty; but, that he thought 15 effective men, would be a sufficient establishment. On the other hand, I consider that an establishment of 14 able woodmen would be sufficient to take charge of all the inclosures at present in the forest; and that number could also take care of other new inclosures as these may be afterwards made in their respective districts. Under this arrangement, each woodman would, in the meantime, have an average extent of 500 acres only of plantations under his charge, a very small extent, when compared with the extent of plantations under the care of many woodmen on private properties. It is, indeed, argued that the plantations in the New Forest are much exposed to depredations; but I do not think they are, in this respect, more exposed than the plantations on many private estates with which I am acquainted, where one efficient man, with ease, takes the care of nearly 1,000 acres. From these considerations,

considerations, therefore, I again repeat that, under energetic management, 14 able woodmen are sufficient to take charge of all the inclosures in the New Forest, and that a greater number can only involve an unnecessary amount of expenditure to the Crown.

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Mr. Clutton, in the closing paragraph of his Report, now under discussion, states, "I beg "to say that, although their Lordships only required a statement in detail of my views on "the several suggestions contained in Mr. Brown's Reports, yet I found in them so many "positive statements which, from my own knowledge of the forest, I knew to be mistakes, "and from which erroneous conclusions have consequently been drawn, that I have consi- "dered it a duty to all parties to lay before you, as far as lay in my power, the facts from "which alone correct conclusions can, as I believe, be arrived at."

As to the "many positive statements" shown to be "mistakes," and "erroneous con- "clusions" which, Mr. Clutton says, "have been drawn," I think I have already sufficiently shown that the mistakes and erroneous conclusions are Mr. Clutton's own. I think I have fully proved that Mr. Clutton's statements and conclusions betray a want of sound practical knowledge on the different subjects he has taken up, and also a strong and unjustifiable desire to support the antiquated and defective system of management which has led to the present inferior condition of the crop in the New Forest. There is scarcely one suggestion which I have made for the improvement of the woods, whether in Dean or the New Forest, that he has not tried to condemn, and that too in a spirit of determined opposition, and on grounds inconsistent with sound reasoning, and plain facts. In short, after carefully reading over Mr. Clutton's Report, now under examination, I have not found one single suggestion in it which could lead to the improvement of any department of these woods, in any respect. Throughout all these discussions, both on the Dean and New Forests, his whole aim appears to have been to condemn every suggestion which I have made, without even a hint at what might be adopted as an improvement for the future. The whole drift of his reasoning, as embodied in his reports, is directed in one stream of prejudice against all that is new or found to be improvements, and in favour of all that is old, and long since found defective, in forest-management. I once more repeat, therefore, that if Government should decide to act on the suggestions contained in Mr. Clutton's Reports respecting their woodlands, these will never become a profitable source of public revenue, but will remain a comparative burden on the country as they have hitherto been.

Having now discussed Mr. Clutton's Report, on the general subject of the New Forest, there still remains for consideration his Appendix, setting forth his opinion respecting the condition of the several inclosures. As, however, the substance of the remarks contained in this Appendix has already been under review, in the foregoing part of this Report, I propose to advert to it very briefly, and only to take up such points as have not already been discussed. Firstly, therefore, as to

Hurst Hill.

Mr. Clutton remarks, "I have been through this plantation many times, at various sea- "sons, and I am of opinion that it has been abundantly drained;" and, "I can only account "for Mr. Brown's different opinion by the fact before stated, that he only saw this plantation "in the wettest part of the wettest winter known for many years, and that this possibly "may have given him an erroneous idea of the plantation."

I have already said that, in no case, is my judgment as to the condition of a plantation in respect to drainage influenced by the state of the weather; it is invariably formed by the kinds and condition of plants growing naturally on the surface, as well as by the condition of the planted crop. In this inclosure, I maintain that there is much damp land, because on its surface plants appear which can exist alone in a soil overcharged with water, and which are never found but on one naturally very damp. Mr. Clutton states "that in the lower "parts" of this inclosure "the drains have been made too close, and consequently, now that "the trees have attained a considerable size, some of them have been blown down for the "want of lateral roots." The result, however, which he ascribes to the closeness of the drains, is entirely attributable to want of attention in keeping them clean. I remarked, in a former Report, that this is the result in all ill-managed plantations, where drains are allowed to choke, and water become stagnated in them. Had Mr. Clutton given a true statement, he would have said that these drains had been neglected, water had stagnated in them, and, consequently, the roots of the trees had become decayed.

Mr. Clutton remarks that there are trees in this inclosure "10 inches diameter." I have no doubt that, on some of the more favourably dry spots, where the trees have had room, a few may be found of 10 inches diameter; but for one to be found of that size, there are many thousands under 6 inches diameter. The trees in Perthshire, and elsewhere, to which I have referred, as being superior to those in the inclosures of the New Forest at the same age, are 11 inches diameter, and 35 feet high.

To Mr. Clutton's further remarks on this inclosure, I shall not advert; they comprise only points already discussed in this and other Reports, and to enter into them again would be useless.

Wootton.

Mr. Clutton says that this inclosure was not thinned till "the year 1834." It would then, of course, be 24 years of age. This statement makes it plain that the inclosure has been very much neglected, and the crop consequently impaired in health at an early stage of its

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its growth; for a well-managed plantation should have at least three courses of thinning by the time it is 24 years old. That the larch failed in this inclosure, I do not doubt; the land is very damp, and in want of drainage, and every experienced forester knows that larch will not succeed on cold, damp, undrained land, such as that in this inclosure.

Mr. Clutton further remarks, in reference to this inclosure, that "much of the comparative inferiority of the oaks here is to be attributed to the blight, or the caterpillar, to which "this inclosure is very subject, but of the existence of which Mr. Brown does not take "notice. All the plantations are subject to them, and no management that I am aware of "can prevent them." The blight, or caterpillar, here referred to, attacks oak-trees in all uncultivated and undrained districts of the country, and I have observed its ravages in all the Royal forests which I have visited. The damp and comparatively uncultivated land in and around these forests, is peculiarly favourable to the generation and increase of these insects; and, until the land is drained in the way I have recommended, their ravages must be expected. Mr. Clutton says, "no management that I am aware of, can prevent them;" but, in saying so, he only betrays his own ignorance. The antiquated system which Mr. Clutton urges in respect to these forests will not, indeed arrest or prevent this evil, but it may, to a great extent, be prevented by efficient drainage, such as I have recommended. In no well-cultivated district of country, have I ever found them to any injurious extent. Vegetation is subject to disease by frost, damps, and ravages from insects, in all primitive tracts of a country; but, as soon as the effects of drainage and proper cultivation are established, frost, damps, and ravages from insects, become almost entirely powerless.

New Coppice.

The remarks made by Mr. Clutton, under this head, being merely a repetition of points already fully discussed, I shall refrain from adverting further to them.

Broomy.

Under this head, Mr. Clutton remarks, "This is one of those in which the pine-nurses "were not planted among the oaks at first, and where Mr. Brown observed Scots-pines of "considerable size growing at wide distances amongst the small branchy oak-trees; they are "those planted (as before described) in every fifth hole, in every third row."

I have only to remark on this extract from Mr. Clutton, that there can be no doubt whatever, a very large number of Scots-pines had been planted among the oaks long prior to the time Mr. Clutton asserts they were first extensively employed; and that these had, in most of cases, been left, till a comparatively recent period, among the principal crop, to its serious and permanent injury, while in other cases, as in the one under notice, they had been injudiciously removed at an early period. My grounds for asserting this, I have stated in my Report of the 19th September last.

Mr. Clutton appears to doubt the policy of cutting down and removing the Scots-pines from among the small branchy oak-trees, as I recommended. I can only say, in reference to this, that if the Scots-pines in question are not removed at a very early period, the oaks standing under their drip and shade, must gradually become more unhealthy, and of less real value.

As to my not visiting Godshill plantation, I have only to remark that, as in the case of Ferney Knapp, King's Hat, and Foxhunting inclosures, formerly adverted to, when I saw that the limited time I had in the forest would not admit of my visiting it, I asked the deputy-surveyor which of the inclosures I had seen most resembled the one named Godshill, when he told me it was of similar character to Broomy. Having seen at least 6,500, out of the 7,029 acres of inclosures, and being well satisfied as to their general condition, I had no hesitation in believing Mr. Cumberbatch's word in a matter with which it was to be presumed he was fully conversant; I took for granted that he gave me a true statement, and accordingly, in my Report, I set down Godshill inclosure as being similar to Broomy.

Wilverly.

With reference to the crop here, I have stated, in my Report of the 31st March 1853, "In examining the trees in this inclosure, my attention was strongly drawn to the very "unusual quantity of dead and partly-rotten branches which I saw protruding from the "stems of very many of the trees," and that "from this fact I infer, that the parts of the "inclosure on which those dead branches are found on the trees had, about 15 years ago, "been severely thinned, and the trees left standing at too great distances one from another, "whereby an undue growth of lateral branches had been induced; and afterwards, as the "trees advanced, and their lateral branches became confined among their neighbours, these, "of course, gradually died."

In adverting to this quotation from my Report, Mr. Clutton remarks, "My inquiries "into the facts in the history of this plantation, have confirmed my previous impressions, "that Mr. Brown's inference respecting its having received a severe and injudicious thinning "about 15 years ago, is not the true cause of the decayed boughs upon the trees. This "inclosure was planted, in the first instance, with acorns. I have ascertained from Mr. "William Reed, and from old woodmen who saw it first planted, and have watched it ever "since, that no severe thinning has ever taken place."

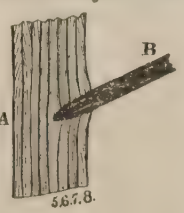
Respecting these statements of Mr. Clutton's, it may be sufficient for me to remark that, while I inspected the inclosure now under consideration, along with Mr. Cumberbatch and his assistant, Mr. William Reed, junior, I expressed my conviction to them on the spot, "that,

"that, about 15 years ago, Wilverly inclosure had been severely thinned, and the trees left "standing at too great distances one from another." The truth of this opinion of mine respecting the thinning of these trees Mr. Reed at once confirmed, by stating that he believed there was a severe thinning made in this and several other inclosures about the time I referred to. I must leave Mr. Clutton, or Mr. Reed, to reconcile these two contradictory statements. I am, however, perfectly satisfied from the general character of the crop on the parts of the inclosure on which the dead branches are found that, about 15 years ago, it did receive a very severe thinning, as Mr. Reed, admitted to me, when I suggested this as the probable cause of the appearance in question.

Mr. Clutton proceeds, and seemingly in a very angry spirit, to condemn, at great length, the recommendation I have made respecting the pruning of the dead branches from the trees referred to in the inclosure now under notice. He says, "It appears to me that this "is the most dangerous of Mr. Brown's recommendations, and should, on no account, be "acted on. Excessive and useless draining may be remedied, by filling up the drains; and "mistakes in planting, by putting in the proper plants afterwards; it is only a loss of time "and money; but nothing can remedy the effects of pruning;" and "the deputy-surveyor "had, before my recent survey, and upon Mr. Brown's suggestions, cut the dead boughs "off the trees on a part of this inclosure; but I am quite satisfied, from my own experience, "as well as by that of extensive timber-merchants, that no bough, whether dead or living, "should at any time be cut from an oak;" and "I understand these dead boughs were "caused by former deputy-surveyors having directed the branches of these short trees to be "'snag-pruned;'" and, further, "I cannot understand how any man, having a knowledge "of the management of oak-timber, can recommend the pruning of a living or dead bough "from an oak-tree, though one bred amongst, and having had the management of, the fir-"tribe, or inferior hard-wood trees, might suppose that an oak would not be injured more than "they are; but he can have had, I think, little experience in the selling of old oak-timber, "otherwise he would not recommend so pernicious a practice."

The spirit of general condemnation in which Mr. Clutton has received every suggestion of mine for the improvement of the crop in these woods, quite prepared me for a similar verdict being passed on my recommendation to prune the dead branches from the trees in the inclosure under notice. On speaking of drainage as a useless operation, and asserting that the planting of larch among oaks in the inclosures of the New Forest would be a mistake in their management, he proves himself to be 100 years behind the age. Every forester at all up with the improved state of his art, admits that drainage of the soil is primarily indispensable, in order to secure the health of oak-trees, and that the next important step in their culture is to rear them among larch, as nurses, instead of among Scots-pines. These advantages, in respect to the culture of oak, Mr. Clutton repudiates, and I am, therefore, not at all surprised that he should be equally blind to the advantages of pruning dead branches from their stems.

In my Report of the 31st March 1853, I state, in reference to the dead branches now under consideration, that "this is the usual result in plantations where there is an absence of regular "and systematic thinning. In the Royal Forests, therefore, where the ultimate object is to "produce sound and valuable timber for the supply of the navy, it "is undoubtedly of the greatest importance that such a condition as "that of the trees alluded to, should be prevented; for, in all cases "where a dead branch is allowed to remain on the stem of a tree, there "is annually inclosed a portion of the base of the dead branch, equal "in depth to the thickness of the sap-wood laid on." These statements will be better understood by reference to the following sketch, on which A. represents a longitudinal section of a part of the stem of an oak-tree, and B. a dead branch protruding.



From this sketch, it will be at once seen how, during each successive year, a part of the dead branch is embodied in the stem of the tree; this is indicated by the upright lines numbered 5, 6, 7, and 8, which represent the annual layers of young wood broken in their upright direction by the dead branch, and each enclosing a portion of it as they are laid on. So long as the branch is allowed to remain on the tree, this deteriorating process proceeds, till a very large part of the branch becomes imbedded in the stem, and ultimately proves a defect in the timber. From this, I think, it will appear plain that, had the branches of the trees under notice been pruned off some years ago, the process described above would not now be going on, the wounds would have been covered over with perfect and continuous layers of young wood, and the timber, consequently, have been progressing in a sound state. In the meantime, this process of deterioration is still in progress, and the longer these branches are allowed to remain, the more extensive the defect will ultimately become. Such, however, is the result Mr. Clutton would bring about in respect of them; his advice, on this point, is in accordance with all his other recommendations in forest-management.

I am myself decidedly opposed to the pruning of live branches from trees of any sort, except in their younger stage, when it may, in some cases, be necessary, in order to put the trees into balance; but, in the case of dead branches, no sensible man would hesitate one moment to cut them off, and this for the reasons just given.

In my Report just adverted to, I further state, that "the defective condition of a very "great portion of the old timber now lying cut in the New Forest is to be attributed to this "cause alone;" that is, to dead branches having been allowed to remain on the trees, and become imbedded in the timber. With reference to this, Mr. Clutton remarks, "I believe

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"the defects of the timber lying felled in the forest arise, not from boughs dying off, but "from their having been cut off, both dead and living."

Conclusive proof exists in the trees themselves that this statement of Mr. Clutton's is essentially erroneous; for there are few defects found on the lower parts of these trees, where alone pruning could have been exercised upon them; the defects are chiefly at a considerable height upon the stems, where no pruning could have been done, therefore, I am compelled to say that this statement of Mr. Clutton's is a mere assumption. There is not the slightest probability of branches having been removed at heights of from 30 to 40 feet on the trees; the truth is, as I have asserted, that these defects have been occasioned by the branches on the trees dying from confinement, and becoming gradually imbedded in the stems, in the way I have explained.

It would almost appear that Mr. Clutton's experience has been confined to the felling and selling of old and defective oak-timber from ill-managed plantations, and that he wishes such a condition should be continued in the Royal Forests to all generations. The defective condition of the timber at present lying cut in the New Forest, which Mr. Clutton is compelled to admit, is, I should think, sufficient to point out to Government that an improved system of management, in respect to their timber there, is absolutely necessary.

Aldridge Hill.

I conceive it is is unnecessary to make any observations on Mr. Clutton's statements respecting this inclosure, as any remarks I could make would only be repetitions of what has already been fully discussed.

Stockley.

In referring to this inclosure in my Report, I state that "the land and the crop, to the "extent of about one half of the whole, is comparatively good," and that "the other half of "this inclosure is made up of detached portions of very poor and damp soil. In proof of the poverty and wetness of this soil, it is only necessary to remark that, on the greater part of it, the trees do not average more than three inches and a half in diameter, at six feet from the ground; "and, with regard to the crop on the poor and damp portions of the land, "referred to above, seeing it is already unhealthy to the last degree, I can only recommend "that it should be altogether cut down, and disposed of; and, as the land on which it is "situated, is quite unfit for the growth of the oak, it should be allowed to remain open and "unplanted." Regarding these recommendations, Mr. Clutton remarks, "I cannot under-"stand the good policy of this plan of cutting down and clearing certain parts of a plan-"tation, and allowing them to remain altogether as waste and unprofitable, because the trees "are not growing so fast as on other parts. It seems to me that, even though the trees do "grow but slowly, and are not likely to attain so great a size as on the good land, it is "better to have a slow-growing crop than none. Slow-grown timber is more durable than "very quick-grown trees, and much small as well as large timber is required for ship and "boat-building purposes;" and further, "it occupies the ground of the Crown against the "commoners."

In answer to these remarks, little more is necessary than to recapitulate the facts of the case. Stockley is an inclosure at least 42 years planted; the better part of the crop on the best land averages only six inches diameter at that age, while, on the bad land referred to, the trees are so worthless as to measure only 3 ½ inches diameter, although also 42 years old. Nothing but the blindness of resolute prejudice, could hesitate one moment in asserting that oaks of 42 years of age, and only 3 ½ inches diameter, are utterly worthless as a crop, and ought to be cut down before rotting on the ground. With all Mr. Clutton's disposition to retain masses of rubbish in the forest, I defy him to prove that such trees, on such soil, will ever attain the dimensions of timber fit for boat-building. The constitution of the trees referred to, has been ruined many years ago, and, if left on the ground, as Mr. Clutton suggests, they must gradually crumble into the soil, instead of becoming of more value. I am perfectly aware "that slow-growing timber is more durable than very quick-grown trees;" and that "much small as well as large timber is required for ship and boat-building;" but such a statement has no real bearing whatever on the point under discussion; for these trees are no longer even slow-growing; they are not growing at all; and, though they were left for centuries, they would never produce timber fit even for the smallest boat. Mr. Clutton urges the same reason for retaining on the ground these worthless and deteriorating oak-bushes that he does in recommending the retaining for a very prolonged period of the crop of old timber; he proposes they should be left, although they should not, in order to occupy the ground of the Crown against the commoners. I have already shown, as regards the general crop that, if this policy should be adopted, it must be ruinous to the interests of the Crown; and I have only to remark, in regard to this very inferior crop in Stockley inclosure, that if it be not cut, the Crown will very soon lose even its present value. Besides, the appearance of such a crop on the ground is highly discreditable to the management of the forest.

Costicles.

I shall refrain from making any observations on Mr. Clutton's views respecting drainage, as set forth under the head "Costicles." His views on this subject are too antiquated and untenable to require further comment than they have already received, both in this Report and in that of the 19th September; I must, however, advert to a statement which

which Mr. Clutton makes respecting my observations on the way in which this plantation has been thinned. In my Report, I state, "Besides the want of drainage, another cause of "the general unhealthiness of the oak-trees on the damp land here is, that the pine-nurses "have been too suddenly removed, after having stood too long among them." Relative to this, Mr. Clutton states, "In my opinion, the oak-trees in this plantation are not unhealthy, "and, taking the situation and quality of the soil into consideration, I think I never saw "a finer young oak-plantation of its age."

No man really familiar with the aspect of well-managed plantations could impartially examine the crop in this inclosure, and pronounce on it the judgment Mr. Clutton has done. At the same time, it is hardly to be wondered at, that one who could either himself suppose, or attempt to lead others to suppose, that the inferior trees in Stockley inclosure are healthy, and will yet attain dimensions for shipbuilding, should maintain that the most inferior trees in Costicles inclosure are fine of their age. From this, and the many similar statements he has made, I can only come to one of two conclusions regarding him; either he does not know the difference between a healthy and an unhealthy crop, or he is prepared, however inferior the crop in these woods might be, still to assert that it is good of its age. I do not deny that "on some spots, where the land is naturally dry, the trees are very "promising and good of their age;" but, on the other hand, where it is damp, they are are inferior. This is the truth of the case, whatever Mr. Clutton may insinuate to the contrary.

Mr. Clutton proceeds: "As regards Mr. Brown's statement, that 'till of late all the "'pines have stood among the oaks, and only a short time since the nurses have been "'removed in a very sudden and injudicious manner;' I was much surprised at this state-"ment, and I requested the deputy-surveyor to give me the particulars of the time when "the Scotch-firs were removed, &c." Then follows a statement setting forth the dates at which Scots-pines had been removed from the inclosure now under notice.

With reference to the statement set forth in Mr. Clutton's Report, I would remark, in the first place, that it appears from it there were only 875 fir-fagots taken from the inclosure previous to 1842, at which date the trees were 13 years old, consequently, the Scots-pines should then have been 18 feet high, on the average, and the oaks about 13 feet, the lines of oaks being thus overtopped by their nurses to the extent of five feet, on either side. The quantity of stuff indicated as removed up to that time, amounted only to what might be taken from a thinning on six acres of the plantation, which extends to 45 acres in all; it follows, therefore, that previous to 1842, when the plantation was 13 years old, the whole crop must have stood in a perfectly impenetrable mass, and the oaks have been drawn up like fishing-rods. This is the legitimate conclusion, from Mr. Clutton's own statement; and it decidedly proves what I have asserted, namely, that the pine-nurses had stood too long among the oaks, and that the health of the latter has been injured thereby.

When this plantation was 13 years old, then the oak-trees must have been all but choked, and struggling for existence. In looking further at the statement given by Mr. Clutton, it next appears that, during the period from 1842 to 1846, there had been removed from the plantation no less than 27,800 fagots, besides 11,025 fir-poles. If this was not removal in a very sudden and injudicious manner, considering the previous state of the plantations, I cannot understand what would have been. A proportion of the nurses equal to the fir-poles and fagots last stated, ought to have been removed by the time the plantation was 13 years old; had this been done, the health of the oaks might have been secured; but, as that was not done, the result now is, that the growth of the oak-crop has, to a great extent, been retarded; and that more especially on the damp portions of the land. After the removal of the large quantity of stuff referred to above, the oaks, which had previously existed in a crowded state among their fir-nurses, must have been left unduly exposed, and blowing about by every breeze of wind, and would make very little progress for some years after. That these trees had been thus treated, I knew at once, when I saw them on the ground, and did not require any statement from the deputy-surveyor to inform me on the subject; though I am certainly surprised how Mr. Clutton could produce such information as answer to my assertion, when, in reality, it conclusively proves its truth.

Ivy Wood.

With reference to the practice which has been adopted in thinning the nurses from this and other young plantations in the New Forest, I state, in my Report of the 31st March 1853, and under the head Ivy Wood, "In the progress of thinning the plantation now under "consideration, as well as all the younger plantations in this forest, the method hitherto "followed has been, to clear away the lines of nurses before taking away any of the oaks, "and thus, when the nurses have been removed, the oak-trees are left standing eight feet "apart, line from line, and only four feet plant from plant in the lines, in which state they "may be seen in this inclosure now under notice. This sweeping system of clearing away "the nurses, is injudicious in the extreme, for, under these circumstances, the oaks are left "much too far apart on one side, and much too close on the other. With a view to obviate "such an unfavourable arrangement of the young trees, in future, after their first course of "thinning, I beg to refer to the diagram and observations relative thereto, which I have "given in my Report on Dean Forest in reference to the subject of thinning the young "plantations in it, and to recommend that the system of thinning there laid down, should, "in all cases, be adhered to."

Respecting these observations, Mr. Clutton states, "These nurses have, as appears by

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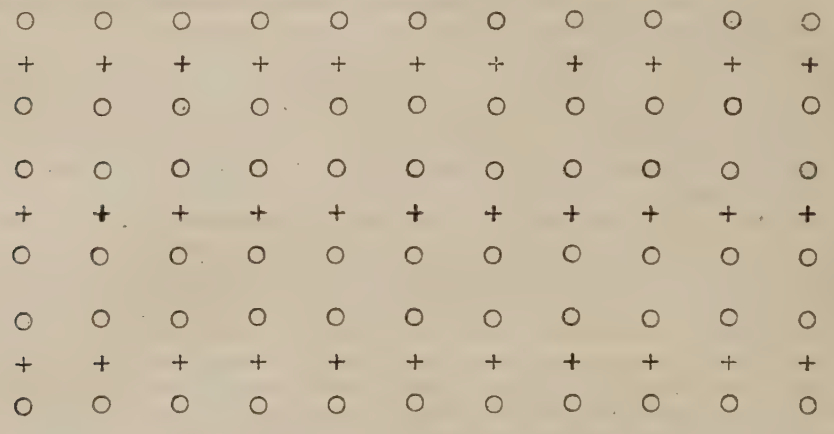
" extracts before me from the books at New Park, been gradually removed. Ever since the " year 1843, whole lines have from time to time been taken out, but I cannot condemn this " method of clearing as 'injudicious in the extreme,' because, even Mr. Brown allows, that the " result of it is, that the crop is generally in a 'vigorous and healthy condition,' and it would " be impossible, except at a considerable increased expense and damage to the oaks, to cut " every alternate nurse, instead of the whole line, &c."

Although Mr. Clutton is of opinion that the removal of whole lines of nurses, whereby the oaks are suddenly left standing eight feet apart line from line, cannot be condemned as injudicious, he will have some difficulty in finding one experienced forester to coincide with him. The reason he alleges, in defence of this system, namely, that I allow that the crop is generally in a healthy and vigorous condition, I can only characterize as childish; for though I assert this, I also state that it might have been much more so, had the mode of thinning I recommended been put into operation, instead of the sweeping system which has been adopted. I am entirely at a loss to understand to what he refers, when he speaks of the difficulties in respect to increased expense and damage to the oaks, were every alternate nurse cut away; such difficulties, expense, &c., exist in his own imagination alone. The plan I recommend, as detailed in my Report on Dean Forest, dated the 7th January 1853, is, when properly understood by the workmen, the most simple and efficacious possible. It is, of course, new to both Mr. Clutton and the deputy-surveyor, consequently, neither of them will readily understand, or appreciate its merits.

The old system of thinning out the nurses, which has been adopted in these woods, and of which Mr. Clutton approves, consists in removing alternate entire lines of pines from among the oaks, as shown in the following diagram:



From this diagram, it will at once be observed that, by this method of thinning out, each alternate line of the nurses (represented by crosses), the oaks (represented by circles) are injudiciously exposed, on the one side, while they are as injudiciously confined by the remaining lines of nurses, on the other; it is, therefore, evident at a glance that this method is objectionable, in the highest degree.

Instead of the mode, above represented, and hitherto followed in the forest, I propose to take away every other oak and every other nurse alternately in each line, thereby leaving the plantations, after their first course of thinning, as shown in the next diagram:

By adopting this system of thinning, the advantages to the future benefit of the ultimate crop, will be found very great; for, by such an arrangement as I have recommended, the oaks will, firstly, have the advantage of being relieved in the lines among themselves; and, secondly, they will also be equally benefited, by being relieved to a sufficient extent, by the removal of each nurse which stood next to them; and, thirdly, they will, at the same time, be incalculably benefited by having the thinned lines of nurses left among them for a few years, which will stand so arranged with regard to them, that these nurses may be allowed to remain for a considerable time, and produce a regular and equal degree of shelter over the whole ground, which condition cannot possibly be secured by the absurd mode hitherto practised in these woods, and which Mr. Clutton recommends as preferable.

I have, &c.

The Right Honourable T. F. Kennedy. (signed) *James Brown.*

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No. 21.

My Lords, Office of Woods, &c., 9 November, 1853.

I HASTEN to transmit to your Lordships a copy of a report from Mr. Brown on the subject of Mr. Clutton's Report, bearing date the 16th of August 1853, on the New Forest, a copy of which was transmitted to your Lordships and to Mr. Brown, on the 1st of September. The Report of Mr. Brown, of which I now transmit a copy, bears date the 5th of November, and reached me on the 8th; and I have had it copied with all despatch, in order to being transmitted to your Lordships with the least possible delay.

I have, &c.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury. (signed) *T. F. Kennedy.*

No. 22.

My Lords, Office of Woods, &c., 15 November, 1853.

I THINK that I ought not to omit to advert to the letter addressed to me by command of your Lordships, on the 13th September, having reference to Mr. Clutton's and Mr. Brown's Reports on the general subjects of the New Forest, in which, in conclusion, your Lordships state that, in the meantime, my Lords would call "your attention to Mr. Clutton's observations "as to felling timber in the New Forest, in which Mr. Brown also concurs, and to the "immediate inconvenience and loss which must arise from an accumulation of inferior timber, "as well as the greater difficulty, in future years, in procuring a proper proportion of good "navy-timber."

It is not my intention to trouble your Lordships with any observations on the several Reports of Mr. Clutton and Mr. Brown, all of which are now before your Lordships, and on which it will be in your Lordships' power to form your opinion; but I am desirous, as briefly as I can, to advert to the subject of the supply of navy-timber, so far as I have myself been concerned, previously to Mr. Clutton and Mr. Brown having been called upon to make their reports.

In the autumn of 1851, my attention was attracted very much to this subject by what had occurred in Dean Forest, in reference to navy-timber, in the previous months of that year, all of which is detailed in my first Report to Parliament, under the head of Navy Timber and Dean Forest; and, it appeared to me, that the contents of Mr. Martin's Report, of 25th August 1851, were most material to be attended to, as well with reference to the New Forest as to Dean Forest and Highmeadow Woods. I, accordingly, addressed a letter on the 23d of October 1851 to the deputy-surveyor of New Forest, of which I annex a copy, for your Lordships' information, and a copy also of the deputy-surveyor's reply, dated the 26th of November. I will not enlarge on the contents of these letters, as they will best explain themselves, further than to observe, that the quantities of timber therein referred to, relate exclusively to timber of the dimensions and character suited for the Royal Navy, so far as size and character go, the particulars as to condition being stated in the letter of the deputy-surveyor. That total quantity amounted to 30,000 loads, and was altogether irrespective and exclusive of large quantities of oak-timber, which in size, character and circumstances, were unsuited for the navy.

In issuing my instructions for felling timber for the Royal Navy, in the year 1852, I had reference to the two items specified by the deputy-surveyor, first, of 10,000, and secondly, of 17,000 loads of timber; and I certainly acted upon the principle, that it was desirable to arrest further deterioration, and to realize the value of a considerable supply of timber for the navy. I was guided by the same principle in issuing my instructions for the fall of timber in the year 1853; and I apprehend that it will eventually be found, in both cases, that I did not fell timber which would not have advanced further in deterioration if it had been left standing. With reference to the year 1852, the result is precisely ascertained; with respect to the year 1853, the result cannot be ascertained until the purveyor for the navy has concluded his duties for the year.

I acted on the same principle with regard to Dean Forest; the result is ascertained, as regards the year 1852; it cannot yet be ascertained, for the same reason, for the year 1853.

I annex, for your Lordships' information, a tabular statement of the total quantities of oak-timber felled under the authority of Her Majesty's Warrant, in New Forest, and Dean Forest, and Highmeadow Woods respectively, in the years 1850, 1851, and 1852, showing also the quantities accepted for the navy, and the per-centage, in each case, of accepted and rejected; but it is necessary to state that the quantities authorized to be felled comprehend the oak-timber of all kinds, as well what was felled for the navy as for general sale, because until within the last two years, no distinction was made in the warrant.

The general result is that, out of a large quantity felled, a small quantity is accepted for the navy.

My object in making this communication is, to bring the facts which have arisen during the three years preceding the current year within your Lordships' knowledge; and to state that, when it shall have been in your Lordships' power to consider the whole subject of New Forest and Dean Forest, it will be necessary that I shall receive, in due time, your Lordships' specific instructions as to the course which I am to pursue with respect to the supply of navy-timber in the year to commence on the 1st of April 1854; and it has hitherto always

New Forest.

Mr. Brown's and Mr. Clutton's Reports.

been found necessary to issue instructions to the deputy-surveyors before the close of the month of December, on the subject of selecting navy-timber for the approaching season, as well as for the preparation of their annual estimates in detail for the year to commence on the 1st of April following. I mention the subject now, in order that your Lordships may be apprized of the practical arangements in these particulars, which have hitherto been found necessary in carrying on the public service.

It is scarcely necessary that I should add that, on the system of general management in the forest, and on the principle of felling timber for the navy, especially in the New Forest, will depend the income to be derived from the forests. On the principles recommended by Mr. Brown, a considerable annual income will be realized; on the principles recommended by Mr. Clutton, a small income will be received from the New Forest, and very little from Dean Forest and Highmeadow Woods.

I have, &c.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury.

(signed) *T. F. Kennedy.*

(Enclosure.)

NEW FOREST, DEAN FOREST, AND HIGHMEADOW WOODS.

NAVY TIMBER, 1850, 1851, 1852.

ABSTRACT of the Quantities of OAK-TIMBER authorized to be Felled in NEW FOREST, DEAN FOREST, and HIGHMEADOW WOODS, and the Quantities accepted by the Admiralty for the Service of the Royal Navy, together with the Per-centages so accepted and rejected in each of the Years 1850, 1851, and 1852.

FORESTS.	Estimated Quantities authorized to be Felled, as per Queen's Warrant.	Quantities accepted by the Admiralty, for the Service of the Royal Navy, as per Store Bills.	Per-Centage on the Total Quantities authorized to be Felled.	
			Accepted.	Rejected.
New Forest:	*Loads. Feet.*	*Loads. Feet.*		
1850 - - - - -	1,641 44	583 33	35·5	64·5
1851 - - - - -	2,531 9	1,352 17	53·4	46·6
1852 - - - - -	4,100 20	936 49	22·8	77·2
		36,777 treenails.		
		984 boatcrooks.		
Dean Forest and Highmeadow Woods:				
1850 - - - - -	925 32	766 6	82·8	17·2
1851 - - - - -	721 0	309 0	42·9	57·1
1852 - - - - -	3,141 7	1,408 12	44·8	55·2
		35,316 treenails.		

No. 23.

Sir, Treasury Chambers, 18 November, 1853.

THE Lords Commissioners of Her Majesty's Treasury have had under their consideration your letter of the 15th instant, adverting to the communication from this Board of 13th September, on the subject of the felling of timber in the New Forest; and requesting instructions as to the course which you are to pursue with respect to the supply of navy-timber in the year commencing 1st of April 1854.

In reply, I am to state that my Lords think you must have misunderstood the import of the letter from this Board of 13th September last. The only object of their Lordships in that communication was, to call your attention to the Reports of Mr. Brown and Mr. Clutton, in respect to the mode in which the timber to be felled had been recently selected, as both these gentlemen concurred that it was prejudical to the forests.

Beyond this point, my Lords do not wish it to be understood that they desire to interfere with your discretion in relation to the timber to be felled for the navy in the ensuing year.

I am, &c.

The Right Honourable T. F. Kennedy.

(signed) *James Wilson.*

DELAMERE FOREST.

NO.	DATE.	——	SUBJECT.	PAGE.
	1854:			
1	10 Jan. -	To W. Lipscomb -	Informing him that his Services are dispensed with -	161
2	11 — -	Report to Treasury	Notifying the Removal of Mr. Lipscomb - - -	161
3	13 — -	From W. Lipscomb	Requesting, with reference to Official Letter of the 10th instant, to be furnished with a Copy of the 31st Report to Parliament - - - - -	162
4	14 — -	Minute - - -	Directing Copy of the Report to be sent to Mr. Lipscomb - - - - - - - - - -	162
5	17 — -	Treasury Letter -	Acknowledging the Receipt of Mr. Kennedy's Letter, of the 11th instant - - - - - - - -	162
6	7 Feb. -	Treasury Letter -	Transmitting Memorial from Mr. Lipscomb, and requesting the Commissioner to Report thereon - -	163
7	10 — -	Report to Treasury -	In Reply to Treasury Letter of the 7th - - -	166

No. 1.

Sir, Office of Woods, &c., 10 January, 1854.

THE time has now arrived when it becomes my painful duty to acquaint you that, in the performance of my public duty, and in virtue of the powers vested in me for the control and direction of the affairs of the Royal forests, I find myself under the necessity of dispensing with your services as deputy-surveyor of Delamere Forest, and I have hereby to intimate to you that you are removed from that office, subject to such an arrangement in respect of time as may reasonably suit the affairs of the forest.

I do not consider it to be necessary to state, in detail, the reasons which have led me, not hastily, to this determination, further than they are stated in my recent Report to Parliament, but I feel bound to say that such a decision cannot be arrived at, and acted on, with respect to any individual, and under any circumstances, without serious regret.

My impression is, that the 1st of April, or the 1st or the 15th of May, or one or other of these times, may prove to be the most convenient at which you should cease to perform the duties of a deputy-surveyor, and that you should remove from your present residence; but, until your successor in office can be appointed, it is not in my power to make a more precise statement.

I am, &c.

W. Lipscomb, Esq. (signed) *T. F. Kennedy.*

No. 2.

My Lords, Office of Woods, &c., 11 January, 1854.

I BEG leave to refer to my recent Report to Parliament, in so far as its contents relate to the Forest of Delamere, and to the statement which I have made of the grounds on which I considered that it would become my duty to exercise the power vested in me for the protection and furtherance of the public interests, by discontinuing the services of Mr. Lipscomb, and removing him from the office of deputy-surveyor. I have intentionally avoided anything approaching to hastiness in the performance of this duty, and, in execution of this painful act of authority; but I have not felt it to be the less necessary, in consequence of desiring to resort to it with deliberation and forethought.

I beg leave to annex, for your Lordships' information, a copy of a letter which I have addressed to Mr. Lipscomb, intimating to him my determination.

Your Lordships will perceive that, in my letter to Mr. Lipscomb, I necessarily advert to the appointment of a successor; and that matter becomes a subject of great importance to

Delamere Forest.

the public, and of much anxiety to me. At a recent interview with the Chancellor of the Exchequer, and the secretary to your Lordships, I was led to believe that my opinion as to the qualifications of a deputy-surveyor (for whom I am the responsible officer, placed in authority over him) was entitled to consideration. I undoubtedly feel that, unless I can place entire confidence in the skill, and reliance on a deputy-surveyor, I cannot be responsible for his acts and management. In these circumstances, I have to request that your Lordships may be pleased to inform me whether I am at liberty to recommend to your Lordships a successor to Mr. Lipscomb, whether I may take such steps as shall enable me to form a deliberate opinion in favour of the qualifications of any particular individual, in whom I could confide, and whose services could be procured. I am aware that persons qualified in all respects for such a position, are not easily to be found, but still I think that, if proper steps are taken, and if no object (other than to procure the best qualifications) is permitted to interfere, persons highly qualified are to be had. I am aware of one or two individuals who answer this description, but still it would be necessary that further inquiry should be made before I could make up my own mind, or make any recommendation to your Lordships. I should, besides, have to ascertain whether the services of any particular individual could be procured on terms which I could offer, and I should not feel justified in applying to any individual to ascertain this fact, unless I had a previous knowledge which should warrant me in communicating on the subject regarding any particular person. Besides, the persons to whom I allude, are in positions of trust, confidence, and high respectability, and I should not think myself justified in disturbing their present relations with their employers, unless with the previous sanction of your Lordships in making my inquiries. After all inquiries were made, any party who might be deemed eligible would necessarily have to give notice to his present employer, which cannot with propriety be very short, and, in relation to the affairs of a forest, it is of great importance that a new deputy-surveyor should actually enter on his duties at the period of the year which enables him to commence with the commencement of the operations of the year. I should consider the 1st of April a time preferable to any later day, the 1st of May not so advantageous, and the 15th of May the latest time which would not be extremely inconvenient.

Under all the circumstances which I have now presumed to state to your Lordships, I have to request that I may be favoured with your Lordships' instructions for my guidance, at your earliest convenience.

I have, &c.

The Right Honourable the
Lords Commissioners of Her Majesty's Treasury.

(signed) *T. F. Kennedy.*

No. 3.

Sir, Delamere Forest, 13 January, 1854.

I HAVE the honour to acknowledge the receipt of your letter of the 10th instant, stating, that, in virtue of the powers vested in you for the control of the Royal forests, you find yourself under the necessity of dispensing with my services as deputy-surveyor of this forest, and adding, that you do not consider it necessary to assign the reasons for coming to that determination, but that they will be found in your recent Report to Parliament.

As I am thus, consequently, left in utter ignorance of the grave charges which could alone justify such an extraordinary and unprecedented proceeding as the abrupt dismissal of an old public servant, without being heard a word in his defence, I must beg to be furnished with a copy of the Report alluded to.

I have, &c.

The Right Honourable T. F. Kennedy.

(signed) *W. Lipscomb.*

No. 4.

MINUTE.

14 January, 1854.

Read.—Transmit forthwith to Mr. Lipscomb copy of the 31st Report of the Commissioners of Woods, &c.

T. F. K.

No. 5.

Sir, Treasury Chambers, 17 January, 1854.

I AM commanded by the Lords Commissioners of Her Majesty's Treasury to acquaint you that my Lords have had before them your letter of the 11th instant, in which you inform their Lordships that, in the exercise of the power vested in you, you have dispensed with the further services of the deputy-surveyor of Delamere Forest, and my Lords have desired me to state to you, in reference to your observations as to the appointment of a successor to Mr. Lipscomb, that they do not wish you to take any steps, but that it will receive the careful attention of their Lordships, upon whom that duty devolves.

I remain, &c.

The Right Honourable T. F. Kennedy.

(signed) *James Wilson.*

No. 6.

Sir, Treasury Chambers, 7 February, 1854.

I AM directed by the Lords Commissioners of Her Majesty's Treasury to transmit to you a memorial from Mr. William Lipscomb, appealing against his removal from the situation of deputy-surveyor of Delamere Forest, and I have to desire that you will report fully to my Lords upon the said memorial, and generally as to the causes which have led to that gentleman's dismissal.

I am, &c.

The Right Honourable T. F. Kennedy. (signed) *James Wilson.*

To the Right Honourable the Lords Commissioners of Her Majesty's Treasury.

The humble Memorial of *William Lipscomb*, Deputy-Surveyor of Delamere Forest,

Showeth,

THAT your memorialist was appointed deputy-surveyor of Delamere Forest on the 1st of March 1836, and has unremittingly continued to perform the duties of that situation to the best of his ability and judgment, and with all the zeal, diligence, and fidelity of which he was capable, up to the present period. That his exertions received the marked approbation of the Commissioners of the Board, collectively, and of the visiting Commissioner in particular, whose wishes and instructions, as to the management of the forest, given in his periodical visitations, memorialist always executed and carried out in every instance to the best of his power, and, as he believes, to the entire satisfaction of the Commissioners. That, in the autumn of 1850, the management of all the Royal forests was placed under the sole superintendence of the present Commissioner in charge, the Right Honourable T. F. Kennedy; that in January and April 1851, Mr. Brown, acting under instructions from Mr. Kennedy, made two visits to Delamere Forest, for the purpose of examining and reporting upon the state thereof; that memorialist received Mr. Brown with due courtesy, and was in constant communication with him during the entire periods of his visits. Your memorialist had no reason to suppose that Mr. Brown had discovered causes of complaint as to the state and management of the forest, but, on the contrary, your memorialist remembers him remarking that memorialist "had a "very good idea of thinning plantations." That the result of these visits of Mr. Brown was a report made by him, and embodied in Mr. Kennedy's first Report to Parliament, but memorialist begs most respectfully to submit that the statements made by Mr. Brown, in that Report, are not borne out by the facts of the case; that the mismanagement therein represented, does not exist, and in proof of which memorialist confidently appeals to a previous Report made on the forest in 1849, by an eminent surveyor well acquainted with the subject, wherein memorialist's management of the forest is commended in most favourable terms. But memorialist thinks it needless to trouble your Lordships with further details of old date, but will proceed at once to state that, on the 11th instant, he received a letter from Mr. Kennedy, dated the 10th instant (January 1854), of which a copy is herewith sent (No. 1), without any previous intimation whatever, dismissing memorialist from the situation of deputy-surveyor of Delamere Forest. That memorialist, on recovering from the shock of such an unexpected communication, returned an answer on 13th instant, a copy of which he begs leave likewise to enclose (No. 2); but the only reply memorialist received to this appeal was the transmission of the last Annual Report to Parliament, which contained very severe strictures on the present management of Delamere Forest, and stated the intention of the Commissioner to remove memorialist. That, after the most careful examination of the said Report, memorialist cannot discover the remotest imputation on his fidelity or integrity, the whole head and front of his offence being, apparently, his difference of opinion with Mr. Brown as to the amount of produce which the forest ought to yield, with a due regard to its ultimate value and benefit. That memorialist courts further inquiry on this important point, and while he is still in ignorance of the substance of the complaint against him, he ventures to state that he is willing to abide the result of the judgment of any third and disinterested party who may be qualified to form an opinion on forest-management. That Mr. Kennedy remarks, in his Report, that, "on making a personal inspection of the forest in July 1852, he formed a decided opinion "that memorialist had a very inadequate knowledge of his duties, and that he was not much "disposed to listen to those from whom he might derive information, or to pay that respect "to the opinion of his superiors that he was bound to do, &c., and that he indulged in flip-"pant observations, and in an expression of ignorant opinions." Your memorialist begs leave to submit that Mr. Kennedy could scarcely have had time to form a "decided opinion" whether memorialist's knowledge of his duties was inadequate, or the contrary, as the whole period occupied by him on the occasion, from the moment of his arrival to that of his departure, did not exceed two hours, including the time employed in walking through the garden, and round the premises, and taking refreshment, after his inspection; and your memorialist presumes to submit that the result of a cursory examination of a small portion of the forest, in this manner, ought not, even if the first impression were unfavourable, to be admitted as condemnatory of your memorialist, without further investigation, and without affording him the opportunity of explanation.

Enclosure, No. 1. *See* page 1.

Enclosure, No. 2. *See* page 2.

Delamere Forest.

Your memorialist laments exceedingly that he should have been considered deficient in respect to the Commissioner, in either his remarks or in his manner, but he trusts that even if he had given cause of offence, some allowance should be made for the mortifying situation in which he was then placed, exposed to charges of mismanagement in the unexpected presence of Mr. Brown, a third party, who accompanied Mr. Kennedy, on the occasion. That upon Mr. Kennedy's observing that "he saw the forest had been very badly managed," your memorialist ventured to refer the Commissioner to the Report of Mr. Clutton (before alluded to), and memorialist respectfully submits that his reference to this high authority, in his own justification, cannot justly be considered in the light of disrespect to his superiors. With regard to the charge of "indulging in flippant observations," your memorialist can only suppose it applies to a complaint of Mr. Kennedy's "that the revenue of the forest was merely nominal." In reply to that observation, though with no intention of flippancy, your memorialist remarked that the average surplus revenue for the seven years ended 5th January 1851, exceeded 1,000*l.* a year, to which Mr. Kennedy replied, "that "he had a very different impression." Memorialist believes, that he afterwards satisfied Mr. Kennedy, by a Return to which he called his attention, that the surplus revenue for the period in question amounted to 1,040*l.* per annum, and a copy of which Return, with the accompanying note, memorialist takes the liberty of enclosing (No. 3), and he ventures to submit that the period selected by Mr. Kennedy in refutation of memorialist's aforesaid Return, as shown in the statement enclosed (No. 4), does not convey a fair impression on the subject, as it comprises a period, 1848-49, when no bark was stripped on the forest, and omits 1847, when the surplus was considerable; but, at the same time, your memorialist ventures to remark, that the result of any selected series of years is no fair criterion of bad or good management, as those results are necessarily governed, in thinning plantations, none of which exceed 40 years' growth, by the price of poles in the market, and the quantity which should be cut with a due regard to the ultimate interests of the forest. Your memorialist takes the liberty of submitting, for your Lordships' perusal, the copy of a letter (No. 5) addressed to Mr. Kennedy on the 29th November 1852, as he observes that Mr. Kennedy has not thought fit to include it in the correspondence which he has laid before Parliament. Your memorialist cannot avoid here calling your Lordships' attention to the fact, as shown by this letter, that he was required, at that time, to conform to recommendations contained in a Report from Mr. Brown, which had not been communicated to him. Your memorialist believes, that he has now gone through the main charges and accusations made in this Report, and to which Mr. Kennedy refers him as affording the sole grounds and reasons for his determination to remove him from office. He confidently, however, appeals to your Lordships for protection against a decision which consigns to ignominy and disgrace an old public servant, who has hitherto obtained the marked approbation of the superiors under whom he has served, and against whose integrity and conduct he ventures to state that no charge can be sustained.

Enclosure, No. 3.

Enclosure, No. 4.

Enclosure, No. 5.

In conclusion, your memorialist begs leave to say, that he is willing to submit to any inquiry into the allegations contained in this memorial, which your Lordships shall be pleased to institute.

(signed) *W. Lipscomb*, Deputy-Surveyor.

Delamere Forest, 26 January, 1854.

(Enclosure, No. 3.)

Delamere Forest, 31 July, 1852.

Mr. Lipscomb presents his compliments to Mr. Kennedy, and begs leave to enclose a statement, in support of his assertion yesterday, respecting the produce of the forest of late, and which Mr. Kennedy seemed to doubt the correctness of, showing a clear average surplus profit of 1,040*l.* 6*s.* 8*d.* per annum for the seven years ended 5th February 1851, after every expense was paid, including the deputy-surveyor's salary, and the necessary repairs of Edderbury Lodge, and eight woodmen's and labourers' cottages.

The Right Honourable T. F. Kennedy.

ABSTRACT of RECEIPT and EXPENDITURE for the Seven Years ended 5th January 1851, according to Annual Returns rendered to the Office of Woods.

YEAR.	EXPENDITURE.			RECEIPTS.		
	£.	*s.*	*d.*	£.	*s.*	*d.*
1845 - - - -	1,913	–	9	1,796	14	7
1846 - - - -	2,313	18	1	3,830	2	10
1847 - - - -	2,502	10	1	4,706	16	2
1848 - - - -	2,494	–	8	4,242	12	1
1849 - - - -	2,087	10	2	2,743	19	9
1850 - - - -	2,125	3	11	2,563	10	6
1851 - - - -	2,037	13	9	2,873	8	–
TOTAL - - - £.	15,473	17	5	22,757	3	11

Net surplus in the seven years, 7,283 *l.* 6 *s.* 6 *d.*

(signed) *William Lipscomb.*

(Enclosure, No. 4.)

Sir, Office of Woods, &c., 23 August, 1852.

I AM desired by the Commissioner in charge of Her Majesty's Woods and Forests, to transmit the enclosed statement of the surplus receipt from Delamere Forest during the last four Parliamentary years, showing the results to which the Commissioner alluded, when visiting the forest, and bearing out the Commissioner's impression with regard to the net produce of the particular years to which his observations were directed.

I am, &c.

W. Lipscomb, Esq. (signed) *A. J. Phipps.*

DELAMERE FOREST.

YEAR.	RECEIPT.			EXPENDITURE.			BALANCE.					
							Surplus Receipt.			Deficiency.		
	£.	*s.*	*d.*	£.	*s.*	*d.*	£.	*s.*	*d.*	£.	*s.*	*d.*
1848-49 - -	1,906	9	3	2,041	18	8	-	-	-	135	9	5
1849-50 - -	2,505	9	9	2,066	16	5	438	13	4	—		
1850-51 - -	2,867	9	–	2,002	10	2	864	18	10	—		
1851-52 - -	2,242	–	2	1,829	7	4	412	12	10	—		
TOTAL - - £.	9,521	8	2	7,940	12	7	1,716	5	–	135	9	5

Net surplus, in the four years, 1,580 *l.* 15 *s.* 7 *d.*

Examined.

Office of Woods, 17 August, 1852. (signed) *A. J. Phipps.*

Delamere Forest.

(Enclosure, No. 5.)

Sir, Delamere Forest, 29 November, 1852.

I HAVE the honour to acknowledge the receipt of your letter of the 25th instant, in reply to mine of the 22d., sending my annual requisition for a supply of Scotch and larch-fir plants, to be planted out in the forest in places requiring them; and, in reference to that part of your letter desiring to be informed "whether my proposals respecting plants and "planting are in strict conformity with Mr. Brown's report and recommendations, which "you express it is your intention shall be strictly acted upon," I beg to observe that, as Mr. Brown's report and recommendations were not communicated to me, I am unacquainted with the nature of them.

In the management of the forest as regards planting, I am continuing to pursue the system which, from a pretty long experience and local knowledge of soil and climate, I have found most beneficial for the rearing of trees, both as regards hardwood trees, to remain as permanent timber, or the fir-tribe, to be cut as soon as profitable, and I have the satisfaction of knowing that the system has received the approval of one of the highest authorities on the subject in England, for Mr. Clutton, the eminent surveyor of land and woods, in his Report to the Commissioners on the state of Delamere Forest, in 1849, says, "great care appears to have "been taken to plant the different qualities of soil with the trees best suited to it;" and again, "the plantations have been so carefully attended to and so well managed, that I should "recommend a continuance of the same practice."

I, therefore, trust I may be permitted to continue in a course of management which has received such distinguished approbation.

When Mr. Brown paid his visit here, by your directions, I was very glad to avail myself of his remarks and suggestions respecting planting, valuable as being those of a practical man, and it did not appear that our views on the subject materially differed.

I have, &c.

The Right Honourable T. F. Kennedy. (signed) *W Lipscomb.*

No. 7.

My Lords, Office of Woods, &c., 10 February, 1854.

I BEG leave to acknowledge the receipt of Mr. Wilson's letter of the 7th February, transmitting to me a memorial "from Mr. William Lipscomb, appealing against his removal "from the situation of deputy-surveyor of Delamere Forest, and desiring that I would "report fully to your Lordships upon the said memorial, and generally, as to the causes "which have led to that gentleman's dismissal."

In obedience to your Lordships' instructions, I proceed to advert to Mr. Lipscomb's memorial, but I regret that, in one respect, it is difficult for me to comply with your Lordships' desire, as I have already stated in the most public manner the whole circumstances which have led to the most painful act of authority which could be exercised by me, in removing this gentleman from his office.

In my first Report to Parliament, dated 1st August 1852, I adverted to the circumstances of Delamere Forest, as far as it was then in my power to do so, and I may here state that ever since I have held the office of Commissioner of Woods, I have found Mr. Lipscomb's proceedings and correspondence to be highly unsatisfactory, and I, accordingly, resorted to the advice of Mr. Brown, in the spring of 1852. I received from Mr. Brown an estimate which showed that, in his opinion, the forest ought to yield an income approaching to three times what Mr. Lipscomb proposed. Mr. Brown visited the forest a second time expressly, in order practically to settle the execution of the estimate with Mr. Lipscomb, and it was so settled, accordingly. I visited the forest in August 1852, and had reason to be dissatisfied with Mr. Lipscomb, and with the state of his affairs. A correspondence commenced in February 1853, and terminated in April. This correspondence is printed in the Appendix to my second Report (page 249 to 258), and, in my Report for the last year, I discussed the subject of Delamere Forest, and stated in a decided manner the views which I entertained. But, I delayed to take the final step, which I considered to be indispensable, in order that anything like precipitation might be entirely out of the question, and it was not until after the interview which I had the honour to have with the Chancellor of the Exchequer, on the 7th of January last (at which Mr. Wilson was present) that I proceeded to act upon the decided opinion which I had formed. At that interview, I incidentally mentioned the subject of Mr. Lipscomb, and some surprise was expressed upon my stating that I had not yet removed him from his office, Mr. Wilson remarking, that he supposed that I had done so, because he had heard of several applications for his situation. I replied that I could not think of removing Mr. Lipscomb while the appointment of a deputy-surveyor for Dean Forest remained unsettled. As soon as I was authorized to employ Mr. Brown, as deputy-surveyor of Dean Forest, I certainly thought that the time had arrived when I ought not longer to delay intimating

mating to Mr. Lipscomb that he was to cease to be deputy-surveyor of Delamere Forest. Delamere Forest.

Under all these circumstances, I am unable to add almost anything, explanatory of the grounds on which I have taken this step, to the statement contained in my last Report to Parliament; and I must venture to remark, that I seem now to be fully justified in having entered into the details embraced in my Report, by the complaint now made by Mr. Lipscomb, that he is uninformed of the grounds on which I have removed him from his office, because what would have been my position now, if I had failed publicly to record the grounds of the opinions I entertained, and of the line of conduct which I contemplated. If I had failed to do so, Mr. Lipscomb might well and justly have complained that I had removed him, without assigning causes for so doing, and that I was guilty of an unjust and tyrannical act, but I felt myself to be incapable of such an unjust and tyrannical act, and, therefore, I had thought it essential to record, in the most public manner and in full detail, the foundations of my opinions, and of the course of conduct to which I looked forward.

I well remember that the course I pursued, subjected me to censure, and that at an interview with Mr. Wilson, on the 28th of July last, he strongly objected to my detailed statements respecting Mr. Lipscomb, and to the number of documents contained in the Appendix to my Report. I regretted that I did not consider it to be consistent with the independent performance of my duty in reporting to Parliament, to abridge or suppress any part of my Report, or of its Appendix; and I regret to say that I was still further subjected to the censure of your Lordships in your minute of the 2d of August, and I must, with all respect, state that I considered such censure to be unjust, as I stated, in my reply, dated the 25th August last, a copy of which I, on the same day, transmitted to the Chancellor of the Exchequer.

In the minute of the 2d of August, the following passage occurs: "When my Lords "perused Mr. K.'s Report, they found in it some inaccuracies, and much detail of communica- "tions between him and officers acting under him, which, without feeling any desire to shield "those officers from imputations, or consequences, to which their conduct may fairly expose "them, appeared to them of too trivial a character for the attention of Parliament, and the "publication of which they do not think altogether becoming in a public department already "armed with extensive powers over their subordinate officers."

"The Commissioners of Woods have, in the right of removal which is vested in them, a "powerful resource for enforcing discipline in their establishment, and their Lordships feel "that communications to Parliament, of the character referred to, could only be called for in "cases in which the powers possessed by the Commissioners could be shown to be inadequate "for the proper fulfilment of their responsibilities." "My Lords considered the Report also "objectionable in other matters, to which they will presently advert."

It is now clear from Mr. Lipscomb's complaints in his present memorial, that he would indeed have had just cause of complaint, if I had suppressed the statements contained in the Report, and the documents contained in the Appendix. In publicly recording them, I have acted with perfect openness and fairness.

To those statements and documents, I am not aware that I can add anything of the slightest importance. I consider them to be abundant and conclusive as to the course which I have thought it my painful duty to take, and by those statements I abide.

I will, however, advert to one or two points in Mr. Lipscomb's memorial, to which importance might be attached, if I passed them over in silence, as I should have done if I acted on my own opinion alone of their importance. He states that, when I visited the forest, in August 1852, my visit was very short. It was not quite so short as Mr. Lipscomb states; at the same time, I am most ready to admit that I had no desire to prolong it; it was a visit by no means agreeable, or satisfactory. Mr. Lipscomb seemed to consider that it was my business to approve of everything he did and said; and I must repeat, that the flippancy of his conversation and his apparent disposition to listen to no opinion, except those which he himself expressed, rendered it worse than unnecessary for me to prolong my visit in the forest. For me to have made an extended examination of the forest, under the circumstances which I state, would have been a species of affectation, on my part, to which I could not reconcile myself, and it could only have been productive of a style of prolonged conversation which was to me most painful, because I was compelled to state to Mr. Lipscomb my strong opinion of the impropriety of his mode of speaking of the subjects which were under discussion. I, therefore, determined to shorten my visit in the forest, although I had entertained a previous intention of spending one or two whole days in it, if I had found that doing so, would have been conducive to the public interest. I thought it best to shorten the visit, in order to give even any hope of an amended state of things with Mr. Lipscomb; and, accordingly, I re-opened my intercourse with him in February 1853, by my letter of the 22d of that month, which gave an opportunity to him to place himself in the right, if he could, and chose to do so, and the subsequent correspondence shows how the anticipations and apprehensions, formed on my visit in August, were justified and confirmed. It is a very trivial matter; but, I may mention that I had requested Mr. Lipscomb to procure for me the use of a horse, to enable me to inspect the forest, and the horse which I found provided was such as no man in his senses would mount. It could scarcely stand on its legs, with broken knees; and, if I had ridden it, I could scarcely have escaped a serious accident. When I asked him what he knew about the horse, he said that he had no knowledge of it whatever.

Delamere Forest.

whatever. So much for the care he took of my mere safety, to say nothing of reasonable comfort. I was obliged to use a horse of Mr. Lipscomb's, which he had not intended me to have, for the short time I was there; and I must say, that the manner in which Mr. Lipscomb had attended to my request upon this trifling but necessary matter, made a decided impression upon my mind, and did not encourage or facilitate a longer visit to the forest. I should not have mentioned such a topic, but for the allusion of Mr. Lipscomb to the circumstances of my visit.

Mr. Lipscomb complains, that I do not include in my correspondence, in the Appendix to my Report, a letter of his, of the 29th of November 1852, and I regret that I did not do so, since he thinks that letter is important. I think it of no importance; but I am glad that it has been transmitted to your Lordships, in order that it may be now included in the materials under consideration.

Mr. Lipscomb states, with reference to this letter, "that he was required, at that time, to "conform to recommendations contained in a Report from Mr. Brown, which had not been "communicated to him." On this statement, I have to remark, that Mr. Lipscomb was required to conform to an estimate, which had been prepared by himself in concert with Mr. Brown, and transmitted by him to me on the 6th of May 1852, consequently, Mr. Lipscomb was required to conform to arrangements and recommendations of which he had a complete knowledge, from the month of May preceding his letter of the 29th of November, and Mr. Brown had been sent into the forest expressly to explain and render practicable, if possible, in Mr. Lipscomb's hands, all the recommendations made by Mr. Brown. Mr. Lipscomb's complaint, therefore, is wholly without foundation, but even if he had had no such previous information, a copy of Mr. Brown's Report on Delamere Forest was sent to him on the 2d of December 1852, being the Report which, in his letter of the 29th November, he stated had not been communicated to him. His complaint, therefore, of being in ignorance of Mr. Brown's recommendations, is an extraordinary complaint now to make, when he was aware of the whole of his recommendations, inasmuch as they were embodied in an estimate prepared by himself in the month of May, and were further fully explained to him by a copy of the Report transmitted on the 2d December 1852.

Mr. Lipscomb's statement on this subject is not correct, and is a quibble upon words; the substance of the case being the reverse of what he states.

I may remark also, that this letter, of the 29th November 1852, recalls to my mind the subject of Scotch firs growing upon black moss, and that it was on this subject, in an especial manner, that Mr. Lipscomb expressed opinions which I considered to show entire ignorance of that part of his duties. He discussed the subject in a tone which I could not approve, and I recollect that I expressed my disapprobation not only of his opinions, but of the way in which he expressed them, in a manner on my part so decided as to be extremely painful to myself.

In Mr. Lipscomb's letter of the 29th of November 1852, he seeks to be permitted to continue in a course of management which has met with "such distinguished approbation;" unfortunately, it did not meet with my approbation, consequently it was not in my power to permit a continuance of the same management.

In endeavouring to comply with your Lordships' instructions to report fully on Mr. Lipscomb's memorial, I have been led into a longer statement than I anticipated; and I believe that I have had it in my power to add very little to the statement of the substantial grounds for his removal from office which are embodied in my Report and its Appendix; and, in conclusion, I can only state to your Lordships, that I consider that Mr. Lipscomb's removal from office to be absolutely essential to the good management and prosperity of Delamere Forest, and, if I had not so considered, after considerable experience and long consideration, nothing would have induced me to resort to the deliberate and painful act of exercising my undoubted authority in this matter.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Honourable the
Lords Commissioners of Her Majesty's Treasury.

BERE AND PARKHURST FORESTS.

MR. BROWN'S REPORTS.

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* Mr. Brown's Reports will be found printed in the Appendix to the Thirty-first Report of the Commissioners of Woods.

† In Correspondence, headed "Royal Forests."

Bere and Parkhurst Forests

Mr. Brown's Reports.

No. 1.

Sir, Office of Woods, &c., 27 November, 1852.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests, to call your recollection to the Commissioner having sent to you a copy of a work on forest-affairs, by Mr. James Brown, and to acquaint you that the Commissioner has so high an opinion of his practical skill in such matters, that he has determined that Mr. Brown shall make an inspection of, and report upon, Bere and Parkhurst Forests, which are under your care and superintendence. By this arrangement, the Commissioner will have the satisfaction of procuring Mr. Brown's opinions and recommendations, and you will, eventually, have the advantage of being enabled to carry into effect such recommendations and improvements as the Commissioner may think fit to sanction.

The Commissioner has reason to believe, that Mr. Brown will have it in his power to visit Parkhurst and Bere Forests in the course of a few days, and has to request that you will afford him every assistance and information in your power, and that you will direct such of the officers and men under you to assist and accompany Mr. Brown in such manner as may be most for his convenience.

Mr. Brown is at present in the New Forest, and the Commissioner has to request that you will at once communicate with him at the Crown Hotel, Lyndhurst, in order to settle the day on which it would be convenient that you and he should meet at Parkhurst Forest, returning from thence to inspect the three divisions of Bere Forest. The Commissioner is of opinion that this will be the most convenient arrangement, consistently with Mr. Brown's present duties in the New Forest, which may prevent him from fixing a day at once; but a satisfactory arrangement may, no doubt, be made.

I am, &c.

Sir James Campbell, Bart. (signed) *G. S. Bedford.*

No. 2.

My Lords, Office of Woods, &c., 4 April, 1853.

REFERRING to my letter, addressed to your Lordships on the 26th of March, stating that so soon as I should receive from Mr. Brown his Reports on Parkhurst and Bere Forests, I should transmit copies of the same for your Lordships' information, I now beg leave to enclose copies of Reports by Mr. Brown on these forests, bearing date the 21st and 30th of March, respectively.

I have, &c.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury. (signed) *T. F. Kennedy.*

[*Note.*—Mr. Brown's Reports on Bere and Parkhurst Forests, will be found in the Appendix to the 31st Report of the Commissioners of Her Majesty's Woods, &c.; that on Bere Forest, at page 278, and that on Parkhurst Forest, at page 283.]

No. 3.

Sir, Office of Woods, &c., 20 October, 1853.

I AM directed by the Commissioner in charge of Her Majesty's Woods and Forests, to call your attention to the letter addressed to you on the 27th of November, 1852, by desire of the Commissioner, in which he adverted to the work on forest-affairs by Mr. James Brown, which he had sent to you, and in which letter he acquainted you that it was his intention that Mr. Brown should inspect and report on Bere and Parkhurst Forests, and you are aware that Mr. Brown subsequently paid a visit to these forests. In the month of March, Mr. Brown made his Reports to the Commissioner, but it was then too late for the Commissioner to issue any instructions on these Reports with reference to the season about to commence; and, for other reasons, the Commissioner thought it undesirable to disturb, at that time, the existing state of things, or any of the details of management, and, in consequence he delayed to transmit to you a copy of Mr. Brown's Reports. He is now desirous that you should be put into possession of them, and there is herewith transmitted to you a copy of these Reports, and the Commissioner will be glad to receive from you, at your convenience, such observations as you may wish to make.

It is obvious that, since the date of Mr. Brown's Reports, a rise in the price of labour has taken place, which must necessarily affect calculations and estimates, and the Commissioner will probably request Mr. Brown to revise his Reports, in this particular. On the other hand, there is reason to believe that a rise in the value of produce may at least compensate the rise in the price of labour, so that results may not, on the whole, be much affected; and, at all events, the rise in both respects must affect the existing arrangements of the forest, whilst they are also applicable to any changes which may have been suggested by Mr. Brown.

The

The Commissioner, in transmitting these Reports to you at the present time, does not wish any steps to be immediately taken founded on these Reports; but he will, at a future time, communicate to you his instructions on this subject.

I am, &c.

Sir James Campbell, Bart. (signed) *G. S. Bedford.*

The receipt of this letter was not acknowledged.

No. 4.

Sir, West Lodge, 1 November, 1853.

I OBSERVE that all sums for "planting," "trees, seeds, &c.," and "plants removed from "nurseries," have been erased from my estimate for Bere Forest, for the current year; I should be glad to know whether it is intended that any planting should be done this season. If not, what is to be done with the plants in the nursery, which are fit for planting out, and will be too large if left there another year. I shall have from 18 to 20 acres altogether, which are quite cleared of timber and underwood, and will be ready to be planted this season. I think it a great pity that a year should be lost. I have heard from Mr. Cumberbatch, that he can spare me as many oak-plants as I shall require in addition, without interfering with his own planting.

I am, &c.

The Right Honourable T. F. Kennedy. (signed) *J. Campbell.*

No. 5.

Sir, Office of Woods, &c., 3 November, 1853.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests, to acknowledge the receipt of your letter of the 1st instant, requesting instructions as to what steps you are to take with reference to planting this season in Bere Forest; and to request that, after having perused Mr. Brown's Report on Bere Forest, recently transmitted to you, you will state, how far the planting you have contemplated corresponds with the recommendation of Mr. Brown, and that if there be any difference, to state in what respects.

You are also to report the size and age of the oak-plants which you have in your nurseries, and the size of those plants which, you state, could be procured from the New Forest.

I am, &c.

Sir Jas. Campbell, Bart. (signed) *G. S. Bedford.*

No. 6.

Sir, West Lodge, 7 November, 1853.

I HAVE to acknowledge the receipt of your letter, of the 3d instant, requesting me to state how far the planting contemplated by me corresponds with Mr. Brown's recommendations, and, if there be any difference, to state in what respects. I have to state, in reply, that I concur generally in Mr. Brown's recommendations, but that I think drains, at 32 feet apart, are more than the ground to be planted generally requires, and I only propose, therefore, to drain where the ground is wet, and that at distances, according to the degree of wetness; also, most of the pieces of ground being in sheltered places, I think the plants need not be put in thicker than five feet over all. I ought also to state, that I have not larch in the nursery to do more than fill up a few gaps, and that, if it is desired, to plant half larch and half oak, as recommended, it will be necessary to purchase larch. The oak-plants in the nursery are rather above four feet high, and those which can be procured from the New Forest, are three feet.

Having been unsuccessful last year in procuring any acorns, I propose also to get from the New Forest a few thousands of seedlings to re-stock the nursery.

I am, &c.

The Right Honourable T. F. Kennedy. (signed) *Ja. Campbell.*

No. 7.

Sir, Office of Woods, &c., 9 November, 1853.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests, to acknowledge the receipt of your letter of the 7th instant, relative to the planting and draining proposed by you in Bere Forest; and to acquaint you, in reply, that the Commissioner is happy to learn that you concur generally in Mr. Brown's recommendations, and to state that he entertains decidedly Mr. Brown's opinions on the subject of draining, and has carried them into effect in the New Forest, to a limited extent; but he has suspended

Bere and Parkhurst Forests.

Mr. Brown's Reports.

further draining and all planting in the New Forest; and that, until the principle is settled on which all planting and draining is in future to be conducted in the New Forest, the Commissioner cannot authorize any planting, or draining, in Bere Forest, or in any other of the forests.

That very important subject is now under consideration; and, until it is settled, all planting and draining-operations, as regards the growth of oak, must stand still.

Besides, the estimate, as respects Bere Forest, for the year to end 31st March, 1854, intentionally contained no money applicable to the service of planting and draining, and such a deviation from the estimate cannot now be sanctioned.

I am also to state, that the Commissioner cannot, under any circumstances, approve of planting young oaks of so large a size as those stated to be in the nursery of Bere Forest, and is, therefore, of opinion that you should remove them at once, and dispose of them by sale, if you can; but, at all events, remove them, and have the land at once dug up and sown with acorns of the present year, in order to have a supply of young plants, at no distant time, procuring acorns from the New Forest, but he does not wish that plants of any kind should be procured from New Forest.

I am, &c.

Sir James Campbell, Bart. (signed) *Wm. Ash.*

No. 8.

Sir, West Lodge, 10 November, 1853.

I HAVE just received your letter of yesterday's date, in which it is stated that you are happy to learn, from my letter of the 7th instant, that I concur generally in Mr. Brown's recommendations. I beg leave to state that my letter warrants no such general conclusion, because it had reference solely to the single subject of our correspondence, viz., the planting of certain parts of Bere Forest, during the present year, and the method of doing it. Mr. Brown's Report gives no new recommendation on such subject, but is in accordance with my own practice, except, as I stated, as to the frequency of the drains and the closeness of the plants to each other. I hope, in the course of a few days, to be able to send you my reply to his Reports on Bere and Parkhurst Forests, which will show how much I differ from him, in most respects.

With reference to the size of plants now in nursery, which you state are too large to plant out, I wish to make some remarks, seeing this is not the first time that a difference of opinion has arisen between us on the subject. If it were desired to plant a fallow-field, or other equally clear place, and especially if in an exposed situation, I should certainly advocate planting with small plants, both pines and oak; but, in sheltered places in Bere Forest, where there is a strong, healthy, well-rooted underwood, which often makes shoots four feet long the first year, it would be the height of absurdity to plant such small plants, and occasion a great waste of money to keep them clear; because, if the underwood, fern, and long grass were not cleared from them, perhaps twice a year, for the first two or three years, they would inevitably be smothered. Even Mr. Brown makes use of the same argument, at page 244 of his book. In the small patches planted by me since I have been here, I have preferred four to five feet plants for these reasons, and have found them to answer well.

Mr. Brown states, in his Report, notwithstanding sundry improprieties of management during late years, which he seems to have discovered since he visited the forest, that, generally speaking, Bere Forest is as promising as any of the plantations belonging to the Crown. Now, I have it on the authority of persons still alive, who assisted in planting the forest, that the plants used were five and six years old, and averaged four and a half feet in height; and, in many sheltered spots, some of which have been selected by Mr. Brown for his encomiums, many of those used were six feet high: a pretty satisfactory conclusion, I should think, that it was not improper to use large plants, under certain circumstances, and an equally convincing one, that it will be wrong to get rid of the plants now in nursery, as well as a waste of time and plants to lose this year.

I exceedingly regret to learn, from your letter, that any part of the New Forest, even to a limited extent, has been submitted to Mr. Brown's recommendations as to draining, but I rejoice to hear that the important subject of draining and planting is under consideration; I hope it is under that of persons of matured experience, for it is high time that the Royal Forests were freed from the crude theories, ignorance, and inexperience of Mr. Brown.

I am, &c.

The Right Honourable T. F. Kennedy. (signed) *Ja. Campbell.*

No. 9.

Sir, West Lodge, 19 November, 1853.

I HAVE received Mr. James Brown's Reports on Bere and Parkhurst Forests, accompanied by your letter of 20th October, requesting me to make any observations on them I might wish. I now proceed to do so.

In Parkhurst Forest, Mr. Brown has divided the soil, and the crop on it, into three classes; and of the first division of 400 acres he says, that the land is good, and under a promising crop

Bere and Parkhurst Forests.

Mr. Brown's Reports.

crop of trees, averaging about 270 per acre, from which the Scotch pine-nurses have been, for the most part, removed. He then goes on to contradict this statement, by saying great irregularity exists; for, "to a considerable extent on the land now under notice, the oak-"trees are in an extremely neglected state, the pine-nurses being still left among them, nor "do they appear ever to have been relieved, although now 30 years of age." I shall not attempt to reconcile this contradictory assertion, but proceed to remark that this statement is utterly untrue. No part of this forest of 30 years' growth, or of half that age, had been left unthinned, up to the time Mr. Brown visited the forest. On the contrary, there is no part which has not been relieved, at least twice, during the last six years. And I have further to add, that I totally dissent from his opinion as to any parts of this, or any division of the forest, having been overthinned; while those parts, which he states were not thinned enough, were purposely left thicker, on account of their exposed situation; a reason of which he seems never to have thought.

In speaking of the second division of 460 acres, he also finds great fault with the irregularity as to thinning. It is not to be denied that irregularity does exist, not only as to thinning, but also as to age, soil, and exposure; but he takes none of these last into consideration, and gives his dictum as to over or under-thinning, without any reference to local circumstances; of which, however, a four-hours' visit to the forest was not likely to give him much knowledge. He states that "the third division of the forest, consisting of 300 "acres, and covered chiefly with a crop of stunted oak-coppice, is of so inferior a character, "that no system of thinning, or draining, would have any beneficial effect on it;" and that, being "principally on the ridges of the hills, it is either gravel or sand, and therefore "adapted to grow Scotch-pines only." He, therefore, advises that it should be cleared, the ground dried by open drains, 35 feet apart, 30 inches deep, 30 inches wide at top, and 12 inches at bottom, and planted with Scotch-pines alone. I differ entirely with Mr. Brown, in every respect, as to this. In the first place, the ground is not principally on the ridges of the hills, but is partly in wet hollows, and partly on the slopes. The oak-coppice is by no means stunted, but quite the contrary; it is only the coppice-shoots which have been allowed to grow into small timber which are so. The soil is principally, if not entirely, a stiff clay, and totally unfit to grow pines of any sort to maturity. Even if it were otherwise, Scotch-pines are a most unprofitable crop; and I have no hesitation in saying, that a middling crop of larch and oak would pay infinitely better than two good crops of Scotch-pine. It appears to me, that the fact of this oak-coppice growing strong and healthy on this soil, points out the oak-plant as the only proper one for it; while the exposure being chiefly to the north-east, is most favourable for using larch as nurses, which grow best in that exposure, being sheltered from the pernicious effects of the south-westerly winds, and are valuable, realizing as thinnings double or treble what Scotch-fir does. Those plants, larch and oak, seen by Mr. Brown, which he observed looked sickly, showing, as he says, that the soil is unsuited to them, had only been planted the previous spring, rather late, on account of the badness of the season, and had the additional disadvantage of perhaps the wettest summer ever known, for their first start in a cold soil. It would, therefore, have been very extraordinary indeed, had they looked otherwise than sickly; a remark, by the way, which was made by Mr. Brown himself when he saw them, but which he seems to have forgotten. Had he also chosen to remember some others, of 12 or 14 years old, which he saw growing well on the same soil and exposure, not far distant from them, he would have seen how prematurely his opinion was expressed. I recommend that the same system which has hitherto been pursued, with regard to this class of soil, should be continued; viz., that it should be cleared, drained, and planted with oak and larch; but I object to Mr. Brown's system of drainage. In the first place, putting drains, 35 feet apart, is a worse than useless waste of money; if the ground was a flat bog, it might be necessary, but in Parkhurst, where there is plenty of fall everywhere, 30-inch drains, at 50 or 60 feet, where the ground is wet, would be quite sufficient for every purpose. The form of drain, which he recommends, has been proved, by experience, to be bad; the sloping sides are so exposed to the action of sun and wind, that they dry rapidly, and, crumbling away, fall into the drain and choke it. In my opinion, they can neither be too upright or too narrow at top in this soil, provided they are wide enough to be cleaned out with a common spade. If Mr. Brown's plan is adopted, the prime cost of making and the cost of maintenance will be increased from 25 to 50 per cent. By far the worst as well as the best parts of the soil of this forest, have already been planted; those which now remain are of middling quality, and, being clay, are, in my opinion, better suited to bring oak than any other tree to maturity. I object also to Mr. Brown's system of future management; he recommends that the thinning should be done regularly once every five years; but I think this would be improper, in the case of this forest, where the nurses are still standing to a considerable extent, and the ground is thickly covered; because, if a sufficient thinning, to last for five years, were made in any one year, the standing crop might receive such a check as it would not easily recover. He complains of the irregularity of this forest, but, when I state that every part of it has been thinned, at least twice, during the last five or six years, it will show how much more irregular it would have been, had it been thinned only once, as, according to Mr. Brown's system, a great part of it would only have been. I believe every one who really knows anything of this subject, will agree with me, that thinning a little, every second or third year, in woodlands such as Parkhurst, is a better system. It is not to be denied that the Scotch pine-nurses were originally left too long in parts of this forest, but they have for some years been thinned out in the manner described by Mr. Brown as "judiciously."

I shall speak of his estimate for the next five years, when I do so of that for Bere, as the same remarks will apply generally to both forests.

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I do not agree in his recommendation for the future establishment for this forest, because, although a foreman may be competent to conduct the affairs, it might be unsafe, and would be unfair, to entrust him with so much responsibility; added to which, the occasional visits of a master, must always be of great service in preventing careless habits, or errors of judgment.

Mr. Brown makes frequent references to the system of draining he has recommended for Alice Holt Forest. I do not know what that may be, and therefore cannot offer any opinion on it, but I must again remark, that the suggestion to have open drains put in this forest, 35 feet apart, is a monstrous proposition, requiring a most unnecessary outlay. Drains, at nearly double the distance, would be quite sufficient, and this is not a matter of opinion; for even Mr. Brown says that 400 acres are under a promising crop of oak, and this has been raised, not only with drains at much greater distances, but in parts where they were deemed unnecessary, without any.

With reference to Bere Forest, Mr. Brown remarks, as to the West Walk, consisting of 917 acres, that, generally speaking, it is in a fair state, but that there has been a considerable degree of injudicious and irregular thinning. This, besides being completely at variance with the fact, is directly contrary to the opinion, repeatedly expressed by him, when in the forest. The probable cause of this change of opinion between the time of his visit last December, and the date of his Report in March, is of little moment, but I may state as to the possible over-thinness of which he speaks, that, in a few places, amounting perhaps to half a dozen acres in the whole, where a good many Spanish chestnuts had been planted, and left in the expectation that they would become valuable timber, they have since been cut away, when found to be faulty, and spreading to the injury of the neighbouring oaks, which may thus be a little too far apart. A patch of this description, was counted by Mr. Brown, and, although the circumstances were explained to him at the time, he does not in his Report mention them, and this can be the only possible foundation for his sweeping general charge of irregularity. At the same time, I cannot accept of his arbitrary decision of the precise number of trees which ought to be on an acre at various ages, as applicable to every soil, climate, or exposure, and in support of this my difference of opinion, I beg leave to refer to Mr. Brown's book "The Forester," page 339, where he speaks of the harm often done to plantations by thinning according to theoretical rules. He goes on to state, that he ascertained that the average number of trees on an acre, in one part, was 160, and that they had an average thickness of 8½ inches at 6 feet from the ground; I have now before me a memorandum, made from Mr. Brown's dictation and figures while on the spot, in which the size is given as 9¼ inches instead of 8½. Why he has altered his figures, he alone can explain. I do not know where the part is which he says is 25 years old, and had only 320 trees, when it ought to have had 400. There is no part of this division of the forest, of any size, which is not at least 32 years old; perhaps, at this age, 320 trees may be considered enough; and, at the same time, I may add, that, as Mr. Brown counted no part of this description, his numbers must be imaginary. He also remarks that, "even under these disadvantages, in respect to "irregular thinning, in consequence of the land being, in general, excellently adapted to the "healthy growth of oak-timber, the trees have not suffered any material check; and, from the "circumstance of the fir-nurses having very judiciously been removed at an early period, the "crop is generally as promising as any he has previously found to a like extent, in any other "of the woodlands of the Crown." Now, it so happens that, in at least two-thirds of this division of the forest, there never were any fir-nurses; and, in the remainder, I have cut away the whole of them in the last eleven years. Mr. Brown's practical knowledge, therefore, seems to be on a par with his candour, or perhaps his anxiety, to find fault with recent management, which seems to have sprung up since he visited the forest, has induced him to make statements which, fortunately, are transparent and easily refuted.

In the East Walk, consisting of 458 acres, he recommends that about 50 acres of poor soil, where the oaks are unhealthy, should be cleared, and replanted with Scotch-pines alone; I object to this as much as I have done to the like recommendation for Parkhurst; and, had Mr. Brown observed the miserable state of the Scotch-pines already there as nurses, I cannot imagine that even he would have advised replanting with them. Ten years ago, this piece of unhealthy plantation was of much greater extent than it now is, and other smaller parts, which have recovered, were nearly as bad. I have no doubt it also will, in a very short time, recover, and eventually grow a far better crop of oak than it ever can grow Scotch-pine, or anything else; bad as the oaks now are, they are generally much more healthy than their nurses ever were, or will be. The soil is poor, and any crop would be of slow growth; but the Scotch-pines have been found, by experience, to be of less satisfactory growth than the oak. There is now on the ground a crop of the latter tree, which makes slow progress, but it is now so far advanced that I should consider it an improper waste of public property to cut it down and replant the ground, as suggested by Mr. Brown. I have no other remark to make as to this division of the forest, of which Mr. Brown seems generally to approve, except that he appears to have altered his figures here, also; for, where he says the 220 trees per acre had a diameter of seven inches, my memorandum, previously referred to, states it to have been eight inches. Also, where he says, "he counted "the trees on an acre on various parts," to obtain this result, I have every reason to think that he counted only one place in this division, as I was with him during the whole of his short stay in the forest. I have no remark to make as to his opinions respecting Bull's Lodge Wood, except as to the drainage, and the cutting of the timber, which will apply equally to the other divisions of the forest. He says, that the land under the young plantations has not been sufficiently drained before they were planted, and recommends that drains should be made along the sides of the roads, with others branching from them into the body of the plantations.

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plantations. He must have seen the forest to very little purpose, since he did not discover the fact, that there is scarcely a road, in any division of it, which has not a drain on each side, with branches from it. I believe, he heard me give an order for cleaning some of the drains at Bull's Lodge Wood, which he probably mistook for an order to make drains, and so pronounced, without further inquiry, that there were none. To show that draining had not been entirely neglected, I may state, that nearly four miles and a half of drains were cleaned in one part of Bull's Lodge Wood alone last winter, in compliance with the order given in Mr. Brown's presence, and it was not found necessary to open a single new one. I object to the frequency of the drains recommended by him for this forest, viz., 32 feet and 40 feet apart, as much, and for the same reasons, as I did for those in Parkhurst. In the same way, he recommends that the old timber in the forest should be entirely cleared, and the ground replanted, which I told him was now the practice, instead of taking only the worst, as formerly.

Mr. Brown gives an estimate for the year ending 31st March, 1854, which he says will be an average for the next five years. There are only two items which I think it necessary to notice, viz., "Receipts," and the price to be paid for bark-stripping; the remainder (except for drainage and planting, which need no comment here), being copied from mine. My estimate for receipts, exclusive of bark, was 890 *l.*; his is 1,660 *l.*, or nearly double. He contemplated a greater fall of timber than I did, which would make up a part of the difference; but, I suppose, he has calculated for the remainder at the value he could obtain for the several kinds of produce at Arniston, while I have done so, at the prices of this neighbourhood; it is, therefore, hardly necessary to say that my estimate will probably prove more correct than his, in this respect. He also calculated on 343 tons of bark, per annum; where this quantity is to come from, I cannot imagine; for, assuming that the number of acres of old timber given by him, viz., 140, is correct, and that there are 80 trees on each acre, (which is, however, considerably more than there actually are), the number to be cut down will be 11,200, or 2,240 for each of the five years. In the present year, it took the bark of about 12 trees (including large old flitterns) to make a ton; so, at this rate, 2,240 would only yield 187 tons, leaving 156 tons to be got from the flitterns, which I gather from Mr. Brown's Report are too thin already, there not being now on the ground 200 and 400 trees per acre, according to age. It takes the bark of 110 flitterns, on an average, to make a ton; it would, therefore, be necessary to cut down 17,160 on one-fifth of the remaining 1,260 acres proposed to be cut annually, or 68 per acre, to make up the specified quantity of bark. This would leave, at the end of five years, when the trees would be from 37 to 43 years old, an average number of from 240 to 100 per acre only, according to age. It appears to me, therefore, that Mr. Brown's estimate is equally fallacious in the item of bark, for although "he observed that on many parts, the trees had not been sufficiently "thinned for their various ages," (which, however, I deny to be the case), it would be impossible to obtain the requisite quantity from them, as they do not appear, from his Report, to have been of any extent. The same remarks apply, in even a greater degree, to his estimate of 140 tons from Parkhurst Forest.

With respect to the price to be paid for "stripping, setting up, drying, and weighing "bark," I should have thought Mr. Brown had made a slip of the pen, (which, however, affects the whole estimate), had he not made the same error as to Parkhurst. He gives 20*s.* per ton, as the price to be paid for these services in Bere, and 25 *s.* in Parkhurst. On referring to Mr. Brown's book, "The Forester," page 393, I find that he pays 47 *s.* per ton at Arniston, for the same service, including felling the trees, but exclusive of weighing. I had to give this year in Bere, 35 *s.* for cutting, stripping, setting up, and drying; and, afterwards, about 3 *s.* 3 *d.* per 100 for carrying out the flitterns; therefore, taking 110 as the number which yielded a ton of bark, I gave about 38 *s.* 6 *d.* for the same services for which Mr. Brown gives 47 *s.*, and says ought to be done here for 20 *s.* I also had to pay 28 *s.* per ton for felling, stripping, &c., timber-bark; timber-merchants, working on their own account, could not get it done this year, in the neighbourhood, for less than 9 *s.* per copse load, which is equal to 31 *s.* 6 *d.* per ton. This clearly shows that the price I gave was not more than the market-price of this work in the neighbourhood.

Mr. Brown recommends, for the future establishment of Bere Forest, that "the foreman "should have the regular assistance of five men, at the West Walk; and the woodman, at "the East Walk, of three men, (and says that 'the person in charge at Bull's Lodge Wood, "from its small extent, needs no regular assistance,') who ought to do all the work, except "cutting and stripping trees in the barking-season." Mr. Brown should, I think, have made more inquiry about the work to be done, before he gave so decided an opinion. For example, he makes at Arniston no faggots, while there were made in the West Walk, in the year ending 31st March 1853, upwards of 53,000, which occupied the time of five men 6 ½ months; this, consequently, would leave them only 5½ months to do all the rest of the work in the forest. In the East Walk, the same remarks apply. Mr. Brown's opinion as to Bull's Lodge Wood is correct, the woodman neither requiring nor having any regular assistance.

I hope I have satisfactorily shown that the estimate made by Mr. Brown of the annual value which ought to be realized from these plantations, is not correct, or one which can be realized.

I am, &c.

The Right Hon. T. F. Kennedy. (signed) *Ja. Campbell.*

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No. 10.

Sir, Office of Woods, &c., 24 November, 1853.

In my Report to Parliament, for the year ending 31 March, 1853, which will be published in a short time, I have stated the grounds on which I have delayed to introduce, into Bere and Parkhurst Forests, any alteration of management; and, under the circumstances, I also delayed to transmit to the deputy-surveyor a copy of your Reports on these forests. But, in the month of October, I thought it desirable to put the deputy-surveyor into possession of your Reports, in order that he might have time to consider them, before the commencement of another year, and in order that I might request him to furnish me with any observations he might wish to make. Accordingly, on the 20th of October, I addressed a letter to the deputy-surveyor, with which I transmitted copies of your Reports; and a correspondence has taken place subsequently to that date, terminating by a Report by the deputy-surveyor, dated the 19th of November. I now enclose a copy of the correspondence, for your information, in order that you may have an opportunity of making such observations as you may wish, and transmitting them to me without any considerable delay.

In sending this correspondence to you, I pass over the tone and character of some of its parts, especially as regards the relative position of a deputy-surveyor to a Commissioner of Woods, who is placed in authority over him, and whose duty it is, by the law, to direct and control his proceedings, and on whom very ample powers are conferred by statute. I have to request that you will direct your observations to the substance of the cases of the two forests in question, and the difference of opinion existing between yourself and the deputy-surveyor.

I am, &c.

Mr. James Brown. (signed) *T. F. Kennedy.*

No. 11.

My Lords, Office of Woods, &c., 24 December, 1853.

I beg leave to advert to my recent Report to Parliament, pages 132, 3, and 4, respecting Bere and Parkhurst Forests, and to the brief statements therein made, of the grounds on which I had not disturbed the existing management of these forests during the current year, and, on the same grounds, I had delayed to transmit to the deputy-surveyor a copy of Mr. Brown's Reports; but, on the approach of another year, and, as Mr. Brown's Reports were adverted to in my Report to Parliament, and placed in the Appendix, I thought it proper no longer to delay to transmit copies to the deputy-surveyor, and to request him to furnish me with any observations he might wish to make.

Accordingly, on the 20th October 1853, I addressed a letter to Sir James Campbell, transmitting these Reports. The deputy-surveyor did not acknowledge the receipt of this letter, or of the Reports; but, on the 1st of November, he addressed a letter to me on a point connected with planting, without the slightest reference to my communication to him. I annex a memorandum relating to this subject, and a letter, which I directed to be written in reply, and these letters were followed by another letter from the deputy-surveyor, dated 7th November, to which a reply was sent. To this last letter, the deputy-surveyor addressed an additional letter to me, dated 10th November, the contents and tone of which surprised me, and I considered that tone to be most unbecoming on the part of a deputy-surveyor towards a Commissioner of Woods, who is placed in authority over him. To that letter of the 10th of November, I did not direct any reply to be made, and I subsequently received an elaborate Report by the deputy-surveyor, dated 19th November, on the subject of Mr. Brown's Reports on Bere and Parkhurst Forests.

The communications of the deputy-surveyor, of the 10th and 19th November, called in question so much, not only Mr. Brown's accuracy, but his competency to treat of forest-affairs, that I deemed it essential at once to transmit those documents to Mr. Brown, in order that he should make such observations as he might think fit, and, accordingly, I addressed a letter to Mr. Brown on the 24th November, transmitting copy of correspondence and Reports.

Mr. Brown having been absent from home, in the north of Scotland, for three weeks, did not receive my communication for a considerable time, and, consequently, has been unable, as yet, to attend to the subject, but, so soon as I receive his further Report, a copy shall be transmitted to your Lordships. In the meantime, I think that I ought not longer to delay to transmit to your Lordships the accompanying papers, as they exist at the present time; and I prefix to them a copy of my letter addressed to the deputy-surveyor of Bere and Parkhurst Forests, of the 27th of November 1852, in which I acquainted him of my original intention that Mr. Brown should visit Bere and Parkhurst Forests. I think it important that your Lordships should be in possession of this document, because I consider that it was written in a proper spirit, on my part, towards a deputy-surveyor, who is a local officer placed under my control and authority, towards whom it is proper to show every becoming courtesy, but over whose proceedings and management it is my paramount duty to exercise such control as I may think necessary. In this letter, it appears that, while I informed Sir James Campbell of my intention to take Mr. Brown's advice, I distinctly referred to Sir James Campbell having the benefit of such recommendations and improvements

ments as I, the Commissioner placed in authority over him, might eventually think fit to sanction. Thus, Mr. Brown was in no way placed in authority over him, but I certainly, so far at least as Sir James Campbell was concerned, exercised my undoubted discretion in desiring to procure the opinion of Mr. Brown. I consider the tone of Sir James Campbell's correspondence towards his superior to be extremely unbecoming; I have not thought it worth while to notice it, but it is impossible I can permit the continuance of such a tone of official correspondence, whether as regards Mr. Brown or any other subject.

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I have, &c.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury.

(signed) *T. F. Kennedy.*

No. 12.

Sir, Treasury Chambers, 5 January, 1854.

The Lords Commissioners of Her Majesty's Treasury, have had before them your communication, of the 24th ultimo, relative to Bere and Parkhurst Forests, and to the conduct of the deputy-surveyor thereof; and my Lords have directed me to request that you will put them in possession of Mr. Brown's observations, in reply to those of Sir James Campbell, at the earliest possible time.

I am, &c.

The Right Hon. T. F. Kennedy.

(signed) *C. E. Trevelyan.*

No. 13.

Sir, Office of Woods, &c., 18 January, 1854.

I am commanded by the Commissioner in charge of Her Majesty's Woods and Forests, to inform you, that it is necessary that Mr. Brown should revisit Bere Forest, and this letter will be delivered by him, in order that he may receive every facility; and I am to desire that the four men of the forest may accompany him in the examination to be made, so far as Mr. Brown may wish to have their assistance.

I am, &c.

Sir James Campbell, Bart.

(signed) *Wm. Ash.*

No. 14.

Sir, Office of Woods, &c., 19 January, 1854.

I am commanded by the Commissioner in charge of Her Majesty's Woods and Forests, to state to you, that the Commissioner considers it to be necessary that you should now proceed to frame and transmit to him an estimate of income and expenditure for Bere and Parkhurst Forests, for the year to commence 1st April, 1854, and to terminate 31st March, 1855; and, in doing so, he has to desire that these estimates may be framed in principle and in detail in such a manner as you may yourself approve, and for which you may desire to be responsible. These estimates will regard the management of the woods and plantations as they exist for the year, but I am to desire that they shall not include any expenditure for draining and planting; as, for these purposes, the Commissioner cannot, at present, sanction any outlay of money.

These estimates, when sent, the Commissioner will consider, and issue such instructions upon them as he may consider to be proper.

I am further directed to state, that the Commissioner has not sooner thought fit to advert to the tone and character of your recent official letters addressed to him, and in particular of your letter of the 10th of November, which he considers to be highly unbecoming and improper, as the letter of a deputy-surveyor addressed to a Commissioner of Woods, who is placed in authority over a deputy-surveyor. Antecedent correspondence had not been free from objection of a similar character; but, the letter of the 10th of November, is, in many of its passages, highly disrespectful to the Commissioner, and I am to inform you that such an unbecoming tone of correspondence the Commissioner will not permit to be repeated.

I am directed to make this statement, on grounds entirely apart from all consideration of the merit or demerit of Mr. Brown's Reports, which have no connexion with the proper or improper conduct, or correspondence, of a subordinate officer of the department.

I am directed to transmit to you a copy of the Act of the 14th and 15th Vict., cap. 42, and to refer you to the 7th sect. of the same, a perusal of which will inform you, that it is the duty of a Commissioner of Woods to control and direct a deputy-surveyor, and that a Commissioner of Woods is also empowered to remove a deputy-surveyor from his office, if, in his judgment, such a step should become necessary. The Commissioner regrets that he should be obliged to point out to you these provisions of the law, which you seem to have overlooked; but, it is his intention to control and direct those who are placed under his authority.

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and, if circumstances should unfortunately render it his duty so to do, he will not hesitate to exercise all the powers with which he is invested for the benefit of the public service to their full extent.

I am, &c.

Sir James Campbell, Bart. (signed) *G. S. Bedford.*

No. 15.

Sir, Arniston, 27 January, 1854.

I HAVE had the honour to receive your letter of the 24th November 1853, transmitting copy of a Report which has been received from Sir James Campbell, deputy-surveyor of Bere and Parkhurst Forests, dated the 19th November, 1853, on my Reports respecting these forests, bearing date the 21st and 30th March, 1853, respectively; and requesting that I should direct my observations to the substance of the cases of the two forests in question, and the difference of opinion existing between the deputy-surveyor and myself, and report the same to you without any considerable delay.

Before taking up the subject of Sir James Campbell's General Report, of the 19th November, I propose very briefly to advert to his letter previously sent to you on the same subject, bearing date the 10th November, 1853. In that letter, Sir James says, in reference to your just objection to his using large plants, "If it were desired to plant a fallow-field, or other "equally clear place, and especially if in an exposed situation, I should certainly advocate "planting with small plants, both pines and oak; but, in sheltered places in Bere Forest, "where there is a strong, healthy, well-rooted underwood, which often makes shoots four "feet long the first year, it would be the height of absurdity to plant such small plants, and "occasion a great waste of money to keep them clear; because, if the underwood, fern, and "long grass were not cleared from them, perhaps twice a year for the first two or three "years, they would inevitably be smothered; even Mr. Brown makes use of the same "argument, at page 244 of his book. In the small patches planted by me, since I have been "here, I have preferred four to five feet plants, for these reasons, and have found them to "answer well."

In making these statements, Sir James Campbell does not appear to be aware of the perfectly familiar fact, that, however strong, healthy, or well-rooted the stoles of underwood may be, and although they should, when left to nature, be so vigorous as to make shoots eight feet long the first year, that tendency may be so checked, by cutting over the stoles in the months of June and July, and, at the same time, making bare their roots, that any after-growths are so weak and unimportant as not to prove injurious to the young trees. Having fully stated the manner in which this operation is performed, in my Report on Highmeadow Woods, dated the 30th December, 1852, it is not necessary that I should repeat it here. Had Sir James been aware of this very important fact, in respect to forest-management, he certainly would not have said that "it would be the height of absurdity to plant such small "plants, and occasion a great waste of money, to keep them clear." The plan of planting large plants "from four to five feet high," as proposed by Sir James, would be the "height of absurdity," and the one which would "occasion a great waste of money;" for it is now proved, beyond a doubt, by all practical men, that oak-plants, of from 30 to 36 inches high, will transplant more safely, establish themselves more surely in the soil, attain, in a shorter period, a more vigorous growth, and arrive earlier at valuable dimensions, than plants of a taller size, provided that all circumstances in connexion with them are alike.

With regard to what Sir James has advanced, respecting the clearing of long grass, &c., from young trees, as referred to in "The Forester," at page 244, I have to remark, that it is not in the least applicable to the case under notice. In "The Forester," I say, that "if the "situation to be planted is a low sheltered one, with a good soil, then choose tall well-grown "plants for it; for, in such situations, there is generally a luxuriant growth of the natural "grasses, and, unless the young trees be pretty tall, they would be altogether choked by such "a mass of herbage surrounding them." On this statement, Sir James has founded the argument that I recommend to plant trees so tall as from four to five feet, as he has been in the habit of doing. There is nothing, however, in my statement to justify his deduction, for I never have recommended to plant in a young plantation trees above 36 inches high, even when the situation is low, and the soil good, and with a prospect of a luxuriant growth of the natural grasses. I reckon young trees for planting-out of moderate size, when they are from 6 to 20 inches high, according to their kind; and I reckon them tall, when from 18 to 36 inches. Experience has taught me that oaks transplanted, at an average height of 30 inches, will be very much more healthy and valuable as a crop when 20 years old, than others which were planted at the same time at 48 inches in height; and, if Sir James had observed the results of different modes of planting as much as I have done, I have no doubt that he would have arrived at the same conclusion. In short, from experience, I am now so confident of the superior results arising from the planting of oaks from 30 to 36 inches high, that I, in all cases, recommend the clearing away of strong grass from the plants of that size for the first year or two where necessary, rather than to plant others of a taller character with a view to their standing above the herbage. Sir James says, "I have preferred four to five "feet plants, and have found them to answer well." With regard to this, I have only to state that, if he had used plants from 30 to 36 inches high instead, he would have found them answer far better.

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Sir James next goes on to say: "Mr. Brown states, in his Report, that, generally speaking, "Bere Forest is as promising as any of the plantations belonging to the Crown. Now, "I have it on the authority of persons still alive, who assisted in planting the forest, that "the plants used were five and six years old, and averaged 4½ feet in height; and, in "many sheltered spots, some of which have been selected by Mr. Brown for his encomiums, "many of those used were six feet high, a pretty satisfactory conclusion, I should think, "that it was not improper to use large plants, under certain circumstances, and an equally "convincing one that it will be wrong to get rid of the plants now in nursery, as well as a "waste of time and plants to lose this year."

In reply to these statements, I have to remark, that I am decidedly of opinion that the crop of oak-trees "in the woods called the West Walk, is generally in as promising a state "as any I have found, on a like extent, in any other of the woodlands of the Crown." But, this opinion has reference alone to these woods as compared with others, belonging to the Crown. In the same paragraph in which I make this statement, I remark also, that the crop of 38 years of age averages 8½ inches diameter, at six feet from the ground, a result which is generally as good as any I have found in any other of the woodlands of the Crown, but not one that will stand comparison with what is to be found on many private estates which I could point out. For example, on the estate of Arniston, we have an oak-plantation only 32 years of age, in which the trees average fully 8 inches diameter; and, on an estate in the north of Scotland, which I visited lately, I found the trees in an oak-plantation of nearly 40 years of age, averaging fully 10 inches diameter. In both of these cases, the trees used, were of small size. Here is a proof that trees at or under three feet, succeed much better than four or five feet ones. Sir James Campbell tells us, that the trees in Bere Forest were planted of sizes averaging 4½ feet high, and some of them 6 feet; and the result of this is, that in the fine climate of the south of England, these have attained, at 38 years old, only 8½ inches diameter, while, in the uncongenial climate of Scotland, we find oaks which were planted of sizes averaging only 30 inches high, now 8 inches diameter, although six years younger than the crop referred to in Bere Forest. These remarks, I think, plainly prove the fallacy of reasoning adopted by Sir James, in respect to using plants above three feet high.

The last paragraph of Sir James's letter, now under discussion, is evidently so full of spleen, that I forbear making any remarks upon it.

I now come to discuss the substance of Sir James Campbell's Report of the 19th November; and, firstly, he remarks, in reference to Parkhurst Forest,

"Mr. Brown has divided the soil, and the crop of it, into three classes; and, of the first "division of 400 acres, he says, that the land is good and under a promising crop of trees, "averaging about 270 per acre, from which the Scots pine-nurses have been, for the most "part, removed. He then goes on to contradict this statement, by saying great irregularity "exists; for, 'to a considerable extent on the land now under notice, the oak-trees are in "'an extremely neglected state, the pine-nurses being still left among them, nor do they "'appear ever to have been relieved, although now 30 years of age.' I shall not attempt "to reconcile this contradictory assertion, but proceed to remark that this statement is "utterly untrue. No part of this forest, of 30 years' growth, or of half that age, had been "left unthinned up to the time Mr. Brown visited the forest; on the contrary, there is no "part which has not been relieved, at least twice, during the last six years," &c. &c.

In reply to these statements, I again repeat, that of the land in Parkhurst Forest there are about 400 acres of good quality, with a promising crop of trees, averaging about 270 per acre, from which the Scots pine-nurses have been, for the most part, removed. This statement is not contradicted by any remarks which follow, as Sir James appears to think; but, on the contrary, it is confirmed, as the following remarks will clearly prove. I state, firstly, that the 400 acres are under a promising crop of trees—promising, let it be understood, in respect to their general health, arising from the nature of the soil on which they grow, but not in respect to the general condition of management they have been under; for, in the latter respect, I say that "great irregularity exists," and that, "to a considerable "extent, the oak-trees are in an extremely neglected state, the pine-nurses being still left "among them;" nor do they appear (on several parts) "ever to have been relieved, although "now 30 years of age." These statements embody the truth of the case, in reference to the crop on the land under notice, when I visited it, whatever Sir James may urge to the contrary; and I think it is much to be regretted that the Government officials of the forests, should endeavour to construe plain and unpretending language in such a way as to cover their own past mismanagement. I state that, on the 400 acres in question, the crop of trees was promising, because, let me add, I found them generally healthy, in consequence of the land being well adapted to their healthy growth; but I limited this statement by saying that "great irregularity exists" (in respect to their general condition as regards thinning); "for, to a considerable extent, on the land now under notice, the oak-trees are in an "extremely neglected state, the pine-nurses (on several parts) being still left among "them."

Sir James endeavours to make it appear that "no part of this forest, of 30 years' growth, "or of half that age," had been left unthinned, up to the time I visited the forest, and concludes his remarks by saying, that my statement is "utterly untrue." Were I on the spot, along with Sir James, I would have no difficulty in proving to any unprejudiced party, to which of the two statements, his or my own, such epithets fairly apply. At this distance of time, I cannot remember the exact spots on which I found the oaks and pines in one almost

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impenetrable mass; but I did see them, and it is only necessary to examine the woodlands even yet to prove that what I have stated is perfectly correct, and that, when I visited these woodlands, there were portions of, 30 years old, from which no pine-nurses had ever been removed. These very portions, I pointed out to Sir James, while I was in the forest along with him, and that in the presence of his foreman. On inquiry, as to why the crop had not been thinned, he said that he had had such a quantity of fir to cut down and dispose of, that he had not yet been able to get over the whole to relieve the oaks. Why he should now deny this fact, and say that there is no part which has not been relieved, at least twice, during the last six years, I must leave to himself to explain.

He next states, "I totally dissent from his opinion, as to any parts of this or any division "of the forest having been overthinned; while those parts, which he states were not thinned "enough, were purposely left thicker, on account of their exposed situation; a reason of which "he seems never to have thought."

Sir James does not appear to think that an oak-crop is too thin, or has been overthinned, while only 200 trees are found on the acre, at 30 years of age. In this opinion, I apprehend he will find no practical man to coincide with him; but, with reference to this point, I would simply ask him why, when I pointed out to him on the ground, in the presence of his foreman, that the crop was on many places overthinned, he should then have agreed with me, and even give his foreman, in my presence, orders not to thin so severely in future. This fact I can attest, and I call upon Sir James to contradict my statement. As to the parts which he says "were purposely left thicker, on account of their exposed situation; a reason "of which," he says, I seem "never to have thought;" it is only necessary for me to remark, that I readily admit that it is sometimes necessary to leave trees a little closer on exposed situations than in sheltered ones; but this has no connexion with the case under review, nor does it even appear that Sir James has ever thought of this till he now brings it forward, as an excuse for past mismanagement, in regard to thinning these woods. On many parts of the forest, the trees are found too close in the most sheltered situations, while, on many of the exposed portions, they are found overthinned. This, I think, is sufficient to show what value can be attached to Sir James's statement.

With reference to that part of my Report on Parkhurst Forest, which treats of the second division, or 460 acres of inferior land which is under an inferior crop of oak of various ages, at and under 30 years, Sir James says,—

"It is not to be denied that irregularity does exist, not only as to thinning, but also as "to age, soil, and exposure; but he takes none of these last into consideration, and gives his "dictum, as to over or under-thinnings, without any reference to local circumstances, of "which, however, a four hours' visit to the forest was not likely to give him much know-"ledge."

In looking over the forest, as well as in reporting on the condition of its crop, I gave all due weight to soil and exposure. I distinctly mention, in my Report, that the soil is inferior; but I beg to remark, that it is not so inferior as to induce unhealthiness in the crop upon it, as it appears Sir James would have it to be believed; neither is its exposure so bad as to account for the inferiority which the crop presents; in short, the irregularity which prevails in the condition of the crop now under notice, both in respect to its health and the number of trees on the acre, even at the same age, is entirely attributable to want of thorough drainage, and past neglect as regards systematic thinning. The soil is undoubtedly inferior, and not adapted to rear trees to such valuable dimensions as the portions of the forest first adverted to; but, after making every fair allowance, on the score of soil and exposure, it cannot be denied that, had the land been drained previous to planting, and the trees been regularly and systematically attended to in the way of thinning, the crop would have been of double the value it is found at present.

Sir James appears to speak of "local circumstances" as if they could not be overcome. I know of no local circumstances, in respect to forest-management, that cannot, at least to a very great extent, be overcome by energetic and well-directed management.

He also appears to think that I was not long enough in the forest to enable me to judge of the nature of the "local circumstances," which appear to stand so much in his way. With reference to this point, I can only remark, that I have been too much accustomed to inspect woodlands, under every variety of "local circumstances," not to pick up these at once as I pass along; and I call upon Sir James Campbell to prove that anything I have stated, in reference to the crop now under consideration, is not the truth.

Sir James next adverts to the 300 acres of very inferior land, under a crop chiefly of old oak-coppice of stunted growth, which is also irregularly distributed in detached portions along with the two descriptions of land and crop already adverted to, being, however, chiefly found along the ridges of the hills, and which I state is of so inferior a character, that no system of either thinning, or draining would have any beneficial effects upon it. With regard to these portions of crop, I recommend, in my Report, as the most profitable method of dealing with them, that the whole should be cleared off, and the ground dried by open drains, put on at 35 feet apart, &c., and to replant the land with Scots-pines alone, as the only crop that will grow profitably upon it.

With reference to these recommendations of mine, Sir James says, "I differ entirely with "Mr. Brown in every respect as to this. In the first place, the ground is not principally on "the ridges of the hills, but is partly in wet hollows, and partly on the slopes. The oak-"coppice is by no means stunted, but quite the contrary; it is only the coppice-shoots, "which have been allowed to grow into small timber, which are so. The soil is principally, "if not entirely, a stiff clay, and totally unfit to grow pines of any sort to maturity. Even "if it were otherwise, Scots-pines are a most unprofitable crop, and I have no hesitation in "saying

" saying that a middling crop of larch and oak, would pay infinitely better than two good " crops of Scots-pine."

It appears, that Sir James has misunderstood the true intent and meaning of my Report on the class of crop now under notice, for the very inferior land referred to by me is chiefly found along the ridges of the hills distributed in very irregular detached portions along with the other descriptions of crop formerly adverted to. I have, however, no doubt that some portions of the very inferior description of crop I refer to are found in wet hollows, and partly on the slopes; but, on careful examination, it will, I am satisfied, be found true that it is chiefly situated on the ridges of the hills. In describing the nature and condition of crop in a soil so variable as that in Parkhurst Forest, it is, I confess, almost impossible to do so with such a degree of precision as would be absolutely secure against the carpings of prejudice. I drew up my Report simply with a view to a practical purpose; and any unprejudiced person, who would examine the crop on the ground, would at once admit that that Report conveys generally the truth of the case, as minutely as is necessary for such practical purposes as the Report was designed to serve.

As to the oak-coppice not being stunted, as Sir James states, I can only say that his opinion as to the healthy condition of oak-trees appears to be very different from mine; and I fearlessly refer to any unprejudiced practical man whether the oak-coppice referred to is not excessively stunted, and whether it will ever become of any important value on the land it occupies. From his stating that " the soil is principally, if not entirely, a stiff clay, " and totally unfit to grow pines of any sort to maturity," I am forced to conclude that he has not properly understood the application of my Report to the portions of land and crop, to which I meant it to refer. The greater part of the soil, under the portions of crop now under notice, consists of a retentive gravelly subsoil, not so much of clay, as Sir James would have it to be understood; on soil of this description, therefore, I assert, without fear of contradiction, that neither oak nor larch will grow to anything like valuable dimensions, but that Scots-pines will do so after the ground shall have been properly drained, in the way I have recommended. But Sir James goes on to say that, in his opinion, " Scots-pines are a " most unprofitable crop;" and further, " that he has no hesitation in saying that a mid- " dling crop of larch and oak would pay infinitely better than two good crops of Scots- " pines." Taking this statement just as it stands, it does seem to me a legitimate question how it is that the " middling crops of oak and larch," for the raising of which Sir James seems to have such a special predilection, should so utterly have failed to yield to the Crown even a " middling " return as rent. If Sir James had, since he obtained the management of this forest, returned to the Crown a free rental of even 10*s.* per acre per annum, I would have admitted that his opinion was worthy of some consideration; but, as the clear return per annum, which he has been able to realize from the woodlands under his charge, falls far below even this, the value of his opinion seems to me practically to fall correspondingly low, and to be fairly measurable by the results of his past management. I shall, at present, refrain from entering further into such a subject; but cannot dismiss it altogether, without warning Government against being guided, in the affairs of their woodlands, by the opinions of men who have not had sufficient practical experience in the subject to enable them to deal with it profitably. No clearer proof of a man's inexperience in business can be adduced, than his want of ability to make it pay, compared with what others, in similar circumstances, have done; and this has been singularly the case, with respect to Sir James, in his management of Parkhurst Forest. If Government shall be guided by him as regards the planting the land now under notice with oak and larch, they will, without doubt, continue to realize such a return from it as has hitherto been done; but, if they wisely plant it with a crop suited to its nature, as I have recommended, the result will ultimately prove satisfactory. In others of the Government forests, as well as in Parkhurst, there has already been a considerable extent of unsuitable land planted with oak, and the result is, that the crop is extremely inferior and unprofitable; while, had the ground been planted with trees suitable to it, the crop would now have been infinitely more valuable.

Sir James proceeds to say, " It appears to me, that the fact of this oak-coppice growing " strong and healthy on this soil, points out the oak-plant as the only proper one for it; " while the exposure, being chiefly to the north-east, is most favourable for using larch as " nurses, which grow best in that exposure, being sheltered from the pernicious effects of " the south-westerly winds, and are valuable, realizing as thinnings, double or treble what " Scots-fir does."

I have already said, that I must entirely dissent from Sir James's assertion as to the oak-coppice, on the land referred to, being strong and healthy; that I hold it, on the other hand, to be stunted, unhealthy, and comparatively valueless. It also appears evident, from the remainder of the sentence just quoted, which has reference to the growth of larch, that he either mistakes, or means to thwart, the meaning of my recommendations generally, by confounding the portions of land and crop I refer to, with others of a different character; for, on no part of the land I have recommended to be dealt with, in the division now under notice, will larch grow to anything like valuable size, whatever Sir James may insinuate to the contrary. I do not indeed deny that larch will grow to the size of very small and inferior trees, on some of the better portions of it, and this appears to be the view that Sir James takes of the subject; but that either larch, or oak, will be more valuable as a crop, on this description of land, than Scots-pines, I unhesitatingly deny.

Sir James states, that " those plants, larch and oak, seen by Mr. Brown, which he " observed looked sickly, showing, as he says, that the soil is unsuited to them, had only " been planted the previous spring, &c. &c.," and " a remark by the way, which was made " by Mr. Brown himself when he saw them, but which he seems to have forgotten, &c. &c."

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I do not question that I may have said to Sir James, that young trees do not generally grow well during the first year after transplanting, for this is the case with young trees, in most soils, but this has no connexion with the point in question. If he will carry his recollection a little further, he may recall that I pointed out to him considerable pieces of young larch which had been more than one year planted, and which looked as unhealthy as those he refers to; a plain proof, that they are not destined to succeed so as to attain any considerable value. I remember perfectly the other portions with larch of an older date, to which he refers, but these do not constitute any part of the crop on the 300 acres of very inferior land, now under discussion. I distinctly state, in my Report, that the 300 acres, constituting the third class of crop, is "under a crop chiefly of old oak-coppice of stunted "growth;" and that, "in looking over these portions of land, I observed that some of it "had been recently planted with oak and larch, and that the plants were looking extremely "unhealthy." These statements convey the truth of the case; and why Sir James should attempt to confound recently-planted oak and larch with larch "of 12 or 14 years old," I cannot comprehend, unless indeed, as would almost appear, he wishes to pervert the truth.

Sir James proceeds to say, "I recommend that the same system which has hitherto been "pursued with regard to this class of soil, should be continued, viz., that it should be "cleared, drained, and planted with oak and larch; but I object to Mr. Brown's system of "drainage. In the first place, putting drains 35 feet apart, is a worse than useless waste of "money; if the ground was a flat bog, it might be necessary; but, in Parkhurst, where there "is plenty of fall everywhere, 30-inch drains, at 50 or 60 feet, where the ground is wet, "would be quite sufficient for every purpose. The form of drain, which he has recommended, "has been proved by experience to be bad; the sloping sides are so exposed to the action "of the sun and wind, that they dry rapidly, and crumbling away, fall into the drain, and "choke it."

It is, no doubt, perfectly natural that Sir James should "recommend that the same system "which has hitherto been pursued with regard to this class of soil, should be continued;" for, it is not to be supposed that he would voluntarily condemn his own past doings; but, as I have already hinted, if Government should be pleased to plant larch and oak, as Sir James recommends, in a soil unsuited to their healthy growth, they must lay their account with reaping a scanty income from all their woodlands so dealt with. Sir James next goes on to object to the system of drainage I have recommended for the improvement of the soil and crop in Parkhurst Forest. He says that "putting drains, 35 feet apart, is a worse than "useless waste of money;" an assertion which shows that he has no practical experience in the drainage of land for the growth of timber. I am perfectly aware that, in Parkhurst Forest, there is everywhere plenty of fall; but, on the other hand, the land which I have recommended to be thus drained, is of a retentive nature in the subsoil, and, if drains are put on it at distances much beyond 35 feet, they will most certainly be comparatively inoperative and powerless to cleanse and open the soil. In stating that "30-inch drains, at 50 "or 60 feet, where the ground is wet, would be quite sufficient for every purpose," Sir James clearly indicates that he is, in respect to drainage, 50 to 60 years behind the times he lives in. About 50 years ago, it was indeed considered sufficient to put on drains at "50 or 60 feet, where the ground was wet," but it is now universally recognised by every one at all up with modern improvements, whether in agriculture or forestry, that such a partial system of drainage is quite inefficient; and, I have no hesitation in saying, that such a system as that here recommended by Sir James would be "the worse than useless waste "of money." As I have fully explained my views in respect to drainage, in my Reports on Dean and the New Forests, it would be superfluous for me to enter again into the subject here. Sir James says that "the form of drain which I have recommended has been proved by "experience to be bad," inasmuch as "the sloping sides are so exposed to the action of the "sun and wind that they dry rapidly, and, crumbling away, fall into the drain and choke it." These statements, in respect to drainage, are so utterly at variance with all practical experience, that they refute themselves. Were this theory of his to be entertained, it would follow that all railway-cuttings should be made perpendicular, and not with sloping-sides, as is usually done. The same principle is applicable to drains as to railway-cuttings; the one is on a small scale, and the other on a large one. I believe only one opinion would be formed of the judgment of the engineer, who should advocate perpendicular railway-cuttings, rather than sloping ones, on the ground of their being less liable to fall in upon the line, and that opinion one by no means favourable to his sanity; yet, this is exactly what Sir James maintains with regard to the almost precisely analogous case of drains.

I may still further remark on this subject that, while I was in the forest, I pointed out to Sir James on the spot, that it would be a great improvement, were he, in future, to cause all drains to be made 30 inches deep, and with sloping sides; to which he at once agreed, but said that he had several times given orders to his people to make all drains with sloping sides, as I had suggested, but that he never could get them to attend to his orders, in that respect, as they had always been accustomed to make them on the old plan, with upright sides. At the same time, he said he quite approved of my suggestion, and pointed out to me some drains which had been made on this principle, which, however, he said were not sufficiently sloped, and that he had determined to cause his people to give them a greater inclination in future, as I had suggested. How he can reconcile these admissions to me, with the utterly contradictory views urged in his Report, I am at a loss to understand.

Sir James next says, "I object also to Mr. Brown's system of future management: he "recommends that the thinning should be done regularly once every five years; but I think "this

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" this would be improper, in the case of this forest, where the nurses are still standing to " a considerable extent, and the ground is thickly covered; because, if a sufficient thinning " to last for five years were made in any one year, the standing crop might receive such a " check as it would not easily recover. He complains of the irregularity of this forest; but, " when I state that every part of it has been thinned at least twice during the last five or " six years, it will show how much more irregular it would have been had it been thinned " only once, as, according to Mr. Brown's system, a great part of it would only have " been."

All these objections against the periodical system of thinning, which I have recommended, are without foundation, and plainly indicate that Sir James possesses no clear or well-defined views in respect to thinning, and that he has had no practical experience as to the great advantages resulting from systematic and methodical arrangement in forest-management. The periodical system of thinning, which I have recommended for the improvement of the crop in Parkhurst Forest, has by me been put into operation on several extensive estates in the north, on all of which it has been found to work satisfactorily. But, in all these cases, the persons in charge are, in every respect, capable of judging soundly as to the relative health of the crop to be operated upon; and, consequently, of knowing what proportion of trees should be thinned out of any particular plantation at a given stage, with a view to the trees being left, after thinning, in such a relative condition one to another, that they shall neither be so much opened up as to induce unhealthiness, by undue exposure, for a period of five years, nor become too close, during that time, by too few being removed at once. The most experienced foresters of the age, have adopted the system of thinning their woods periodically, as I have recommended; but, in prosecuting the system successfully, much practical judgment is necessary, in order to understand what proportion of trees should be removed at any one time. This, of course, can only be accomplished under the superintendence of a man qualified to judge of the health of the crop in each district respectively; and, if Sir James is not possessed of these qualifications, he will, no doubt, think that the system which I have recommended is an improper one; but his objections do not, in the least, invalidate what I have recommended. Any system, however efficient, under the direction of an able and experienced person, may become powerless and injurious under weak and inexperienced management.

Sir James confesses, that " the ground is thickly covered," but says that, in these cases, " if a sufficient thinning to last for five years, were made in any one year, the standing crop " might receive such a check as it would not easily recover." This, I repeat would, no doubt, hold true, under inefficient management, but, under an experienced operator, the result would be the contrary of what he anticipates. From his stating, that " every part " of the forest has been thinned, at least twice, during the last five or six years," I am compelled to record my opinion that his mode of thinning must be more a loss than a gain to the Crown; for, on many parts, I found the crop overthinned; and, on many others, there was no appearance that thinning had ever been performed, showing that the mode of thinning pursued, is irregular, and without system. Had thinning been performed systematically, every part of the crop would now have been found in one relative state of closeness, according to the age of the trees.

Sir James proceeds to say, that the Scots pine-nurses " have, for some years, been thinned- " out in the manner described by Mr. Brown as 'judicious.'" I would only remark, in reference to this, that he is mistaken in stating that I have said, in my Report on Parkhurst Forest, that any thinning-operations have been done " judiciously" there.

He next goes on to say, " I do not agree in his recommendation for the future establish- ' ment for this forest, because, although a foreman may be competent to conduct the affairs, " it might be unsafe, and would be unfair, to entrust him with so much responsibility; added " to which, the occasional visits of a master must always be of great service in preventing " careless habits, or errors of judgment."

From this quotation, it is clear, that Sir James has misunderstood the import of my Report respecting the establishment for this forest. He appears to be under the impression, that I recommend that his services should not be continued in superintending the affairs of Parkhurst Forest. This, however, is an entire misapprehension; I did not mean to infer that the foreman alone should superintend the forest, but that the foreman alone should be kept there, as a permanent establishment on the ground. Had Sir James looked carefully under the head Estimate of General Receipt and Expenditure, he would have seen that I have allowed 50 *l.* for his salary as deputy-surveyor of the forest.

It is stated that " Mr. Brown makes frequent references to the system of drainage he has " recommended for Alice Holt Forest. I do not know what that may be, and, therefore, " cannot offer any opinion on it; but I must again remark, that the suggestion to have " open drains put in this forest, 35 feet apart, is a monstrous proposition, requiring a most " unnecessary outlay. Drains, at nearly double the distance, would be quite sufficient, and " this is not a matter of opinion, for even Mr. Brown says that 400 acres are under a pro- " mising crop of oak," &c.

In reply to this, I beg to remark, in the first place, that the system of drainage which I have recommended for Alice Holt Forest, is to have drains made along each side of all the roads, which will serve the double purpose of acting as main drains, and of keeping the roads dry, and in a thoroughly good state for the forest-operations generally, and to have others made to run into them from such damp parts in the body of the plantations as require to be dried; and further, to have the drains along the sides of the roads made 36 inches wide at top, 36 inches deep, and 12 inches wide at bottom; those cut to run into them from

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the wet land, in the body of the plantations, to be made of the sizes specified in the Report on Parkhurst Forest.

It would, I think, be superfluous to say much more, in reference to the imperfect system of drainage which Sir James would continue in the forest; I may however remark that, if the land should not be drained, in the way I have recommended, the crop will progress as slowly as it has hitherto done, and no satisfactory results will follow subsequent new plantings. Sir James appears to put great stress upon my statement, that "400 acres are "under a promising crop of oak," and deduces from it the somewhat unwarranted assumption that the system of drainage, hitherto practised in this forest, has been very efficient. With regard to this, it may be sufficient for me to state, once and for all, that, although I assert that the crop of oak on the 400 acres, adverted to in my Report, is promising, the assertion must be understood in the comparative degree, and not in the absolute, as Sir James would infer. In short, although I admit that, at present, it is promising in respect to health, and may be made comparatively valuable, if systematically attended to in future, I, at the same time, must assert that, had the ground been thoroughly drained before the trees were planted, and had they been attended to, and periodically and systematically thinned since, they would have now been found of double the value they are.

With reference to the crop in that portion of Bere Forest called West Walk, I say, in my Report, "that, generally speaking, it is in a fair state; but there has been a considerable "degree of injudicious and irregular thinning." Respecting this statement, Sir James says: "This, besides being completely at variance with the fact, is directly contrary to the opinion "repeatedly expressed by Mr. Brown, when in the forest;" and goes on to refer to the removal of some Spanish chestnuts as the probable overthinning of which I speak, and concludes his remarks, on this branch of the subject, by saying, that "a patch of this "description was counted by Mr. Brown, and, although the circumstances were explained "to him at the time, he does not, in his Report, mention them, and this can be the only "possible foundation for his sweeping general charge of irregularity." In reply to these quotations, I would remark, in the first place, that no statement which I have made, can be said to be "at variance with the fact." I inspected Bere Forest, with a view to give an impartial opinion as to the condition of the crop in it, which I have done to the best of my judgment; and I again unhesitatingly assert, that there has been a considerable degree of injudicious and irregular thinning performed. Sir James is, no doubt, the party responsible for these injudicious and irregular thinnings, and it is but natural to suppose that he will be anxious to exonerate himself from such a charge; but, a simple examination, on the spot, would at once determine which of us is right in our statements of the case. Sir James indeed says, that the assertion I have made in my Report "is directly contrary to the "opinion repeatedly expressed by me when in the forest." I can indeed remember well that, while walking over the forest with Sir James, when I happened to see any part of the crop which had been well thinned, and which I considered in a good and regular condition, I pointed out the circumstance to him, and expressed my satisfaction in respect to the crop on such a part; but, on the other hand, when any portion which had been excessively, or insufficiently thinned, presented itself, I pointed out these cases to him, also; these, however, he appears to have altogether forgotten.

As to the Spanish chestnuts, referred to by Sir James as having been taken out, and as constituting the probable overthinnings of which I speak, the removal of these forms indeed part of the overthinnings which have been made, but only a very small part, for much of the crop where no chestnuts existed has also been overthinned. Sir James appears to think that he has done quite right in indiscriminately cutting down chestnuts, although the removal of these has caused considerable blanks in the plantations. In this opinion, I cannot concur with him, because the injudicious removal of trees of any sort from among oaks has a tendency to impair the value of the crop which remains. That the chestnuts were cumberers of the ground, cannot be denied, and, consequently, their removal ought to have been provided for; the evil lies in the manner in which they have been removed, for they have been cleared away suddenly, and all at once; whereas, for the sake of the oak-crop among which they stood, they should have been taken away gradually as they came to interfere with the oak-trees in their immediate neighbourhood. In short, had Sir James acted the part of an experienced and skilled manager of woods, he would not have cut away the chestnuts all at once, in the way he has done, but would have gradually removed them by a few at a time at each course of thinning, as they were found to interfere with the oaks. This, however, he has not attended to, in this particular; therefore, I say that he has thinned injudiciously. Sir James complains that, although the circumstances respecting the removal of the chestnuts were explained to me at the time, I did not mention them in my Report. In a general Report, such as the one I gave on Bere and Parkhurst Forests, I do not consider it absolutely necessary that I should enter into explanation of every cause and effect regarding the condition of the crop. In such cases, I consider it enough simply to state the general facts, as they appear to me; therefore, I said generally, that "injudicious and irregular thinnings "had been made."

Sir James next goes on to say, "that he cannot accept of my arbitrary decision of the "precise number of trees which ought to be on an acre, at various ages, as applicable to "every soil, climate, or exposure; and, in support of this my difference of opinion, I beg "leave to refer to Mr. Brown's book, 'The Forester,' page 339, where he speaks of the "harm often done to plantations by thinning according to theoretical rules." In answer to this, I need only remark, that the part of "The Forester," to which Sir James alludes, has

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no application whatever to plantations of the age of those found in Bere Forest; it has reference exclusively to the thinning of nurses from among hard-wood.

He proceeds to say, that I "ascertained that the average number of trees on an acre, in "one part, was 160, and that they had an average thickness of 8 ½ inches, at six feet from "the ground;" and "I have now before me a memorandum made from Mr. Brown's dictation "and figures, while on the spot, in which the size is given as 9 ½ inches, instead of 8 ½; why "he has altered his figures, he alone can explain."

In answer to these somewhat extraordinary statements, I beg to say that I gave, in my Report, the results of my calculations as taken on the spot, and I believe these calculations are substantially correct, both as to the number of trees on the acre, and as to the average diameter of them; but this point may, if considered necessary, be very easily determined by further measurements. I beg, however, most distinctly to disavow having, as his charge implies, perverted the truth, by giving one measurement to Sir James, and recording another, in my Report. I cannot be expected to be responsible for whatever figures may be found written in his memorandum-book, or for any assertion and charges, he may be pleased to found on them.

It is next stated, "I do not know where the part is which he says is 25 years old, and had "only 320 trees, when it ought to have had 500. There is no part of this division of the "forest, of any size, which is not at least 32 years old; perhaps, at this age, 320 trees may be "considered enough; at the same time, I may add, that, as Mr. Brown counted no part of "this description, his numbers must be imaginary."

From these statements by Sir James, it might appear that his acquaintance with the woodlands entrusted to his management, is considerably less intimate and accurate than their efficient and profitable superintendence would require. I beg to inform him that a considerable portion of the crop on the part of Bere Forest marked No. 1 on the plan, and which is called "Lower Ford," was about 25 years old, when I inspected it. Besides this, the crop on the part of the forest marked No. 3 on the plan, and called the Large Wood, was from 25 to 37 years old, when I inspected it. The ages of the crops, on these parts, I got from the foreman of the forest. I beg also distinctly to repudiate Sir James' assertion, that I counted no part of the description, referred to; if I had not, I certainly would not have stated the number of trees, but I presume that the crop is still on the ground, and can be referred to, in order to prove the truth of the case.

With reference to my general opinion respecting the removal of the fir-nurses from the crop of oak in West Walk, Bere Forest, Sir James says, "It so happens that, in at least two-"thirds of this division of the forest, there never were any fir-nurses; and, in the remainder, "I have cut away the whole of them in the last eleven years. Mr. Brown's practical know-"ledge, therefore, seems to be on a par with his candour, or perhaps his anxiety to find fault "with recent management, which seems to have sprung up since he visited the forest, has "induced him to make statements, which fortunately are transparent, and easily refuted."

From the tone Sir James here assumes, it is manifest that he is hardly so cool and dispassionate as it were well he was, in order to deal fairly with the important subject under consideration; he appears to arrive at his conclusions hastily, and in anger. I do not say, in my Report, to what extent the fir-nurses had stood among the oaks; but that these had existed to a considerable extent on many places of the forest, I could readily distinguish, by the general character of the oak-trees; and, on this ground, I stated the general fact that the fir-nurses had very judiciously been removed at an early period, without making any specific reference as to what extent they had previously existed among the oaks. However, I may remark that, while I was in the forest, there was a considerable quantity of Scots-pines remaining on some parts. As to the extent of these which had, at no very distant period, been retained among the oaks here, I may also state that, while I was in the forest, I asked Sir James, in the presence of his foreman, if he had thinned out the greater part of the Scots-pines since he got the management of the forest; when he told me that he had, and that, when he came to reside in it, "there was a very great extent of the plantations with firs "among the oaks," but that, when he commenced thinning, he lost no time in having them removed. Why he should now turn about, and state that "in at least two-thirds of this "division of the forest, there never were any fir-nurses," I am at a loss to understand, and I must leave it to Sir James to show wherein I am deficient in candour, or have made statements transparent, and easily refuted. As to my supposed "anxiety to find fault with recent "management," I think it is only to be regretted that fault was not found, as regards the management of these woodlands, many years ago; had this been done, great advantage would have accrued to the interests of the Crown, and much might then have been accomplished which now is beyond control.

With reference to the East Walk, Sir James says, "He recommends that about 50 acres "of poor soil, where the oaks are unhealthy, should be cleared, and replanted with Scots-"pines alone. I object to this, as much as I have done to the like recommendation for "Parkhurst; and, had Mr. Brown observed the miserable state of the Scots-pines already "there as nurses, I cannot imagine that even he would have advised replanting with them. "Ten years ago, this piece of unhealthy plantation was of much greater extent than it now "is, and other smaller parts, which have recovered, were nearly as bad. I have no doubt "it also will, in a very short time, recover, and eventually grow a far better crop of oak "than it ever can grow Scots-pine, or anything else; but, as the oaks now are, they are "generally much more healthy than their nurses ever were, or will be. The soil is poor, and "any crop would be of slow growth; but the Scots-pines have been found, by experience, to "be of less satisfactory growth than the oak. There is now on the ground a crop of the "latter tree which makes slow progress, but it is now so far advanced, that I should con-

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" sider it an improper waste of public property to cut it down, and replant the ground, as " suggested by Mr. Brown."

In these statements, Sir James recommends to deal with the property of the Crown in such a way as no wise private proprietor would do in respect to his own plantations; namely, to retain a diseased and slow-growing crop on land confessedly of poor quality. No practical man would thus advise, as Sir James does. Oak is naturally a slow-growing tree, under the most favourable circumstances, and how it could be made a profitable crop on poor land, such as this under notice, on which even Sir James confesses its progress would be slow, I do not understand; such a policy as is here recommended, would be the worst possible for the interests of the Government, in respect to their woodlands. These inexperienced views of the deputy-surveyor's, have already led to too much deterioration of the crop in the Royal Forests, and it is now high time that such a system should be put a stop to. Sir James says that " had Mr. Brown observed the miserable state of the Scots-pines, already there as nurses, " I cannot imagine that even he would have advised replanting with them." I have only to remark, in answer to this, that Sir James does not give a true picture of the state of the crop on the 50 acres of poor land under notice. The true character of the crop, as it now exists, there, is this:—The Scots-pines are about 34 years old, comparatively tall, far apart one from another, and appear to be a remnant of a former crop of trees, which had been partly cleared away. Among these Scots-pines, thus left at wide distances over the ground, oaks have been planted at various times, so that, at present, these latter trees seem to be of various ages, from 25 years down to 8 years; and they are all of so bushy and unhealthy a character, that it is evident they never can become of any considerable value as a crop. This state of the oak-portion of the crop here, is at once accounted for, when it is understood, firstly, that the soil is not suited to its healthy growth, and, secondly, that it has also been much impaired by the shade of the tall Scots-pines growing among them. This is the condition of the oak-portion of the crop, which I repeat is unhealthy, and will never become of any considerable value. I am satisfied, therefore, that the wisest policy in regard to it, is to clear it off, and replant with Scots-pines, which tree alone will yield a profitable return upon such a soil. The Scots-pines now standing there are, I am aware, not in a promising, or improving condition, but this is attributable to their having been suddenly exposed at the time the original crop, of which they formed a part, was cleared away from them. I advise, therefore, that they also should be cleared away, and the ground replanted with a new crop, which will without doubt, under good management, become valuable on this land, whatever Sir James may urge to the contrary.

Here again I am charged, on the authority of Sir James's memorandum-book, with having altered figures, and given him a diameter of eight inches to trees, which my Report specifies as only seven. I can only give an explicit denial to the charge, remarking, at the same time, that it seems disproved by the fact that Sir James does not venture to impugn the correctness of the figures, as they appear in my Report: that correctness can be easily certified, by a reference to the trees in question.

As to Sir James's views respecting my suggestions for the draining of the land in Bull's Lodge Wood, I have only to remark, that they are so antiquated as to be unworthy of any particular notice. He says, " I object to the frequency of the drains recommended by him " for this forest, viz., 32 feet and 40 feet apart, as much, and for the same reasons, as I did " for those in Parkhurst." However much he may object " to the frequency of the drains " recommended by me," the system which he has adopted will remain powerless to improve the soil; or secure the health of the crop under his charge; and, until the depth and frequency of drains which I have recommended, shall be adopted, the Bull's Lodge Woods will not improve satisfactorily on such flat-lying stiff clay-soil.

Sir James, in referring to my estimate of income and expenditure for the Forest of Bere, for the next five years, says, " There are only two items which I think it necessary to " notice, viz., 'Receipts,' and 'the price to be paid for bark-stripping;' and my estimate for " receipts, exclusive of bark, was 890 *l.*; his is 1,660 *l.*, or nearly double. He contemplated " a greater fall of timber than I did, which would make up a part of the difference; but I " suppose he has calculated for the remainder at the value he could obtain for the several " kinds of produce at Arniston, while I have done so, at the prices of this neighbourhood; " it is, therefore, hardly necessary to say that my estimate will probably prove more correct " than his."

With regard to Sir James's estimate for receipts for Bere Forest, exclusive of bark, he says that for the year to end on 31st March, 1854, he made it 890 *l.* On looking over his estimates of receipts for the three years previous to the one just quoted, I find that the average annual sum realized, exclusive of bark, has been 975 *l.* 12*s.* 2*d.* nearly; from which it is to be inferred that, instead of being disposed to increase the value of the timber-produce as he ought to do, he purposes to make it gradually less. It is hardly to be wondered at, therefore, if he is a little startled at my proposal to draw from it nearly double what he seems disposed to do. I cannot account for his seeming unwillingness to make the forest pay a fair rental to the Crown. The forest is capable of producing annually, under well-directed management, the sum of 1,660 *l.*, exclusive of bark, as I have stated, but whether Sir James may be disposed for, or equal to, the task is another question.

As to his supposition, that I calculated the price of produce at the rate I could obtain at Arniston, I have only to say that, while I was in the forest, I made very minute inquiries at Sir James respecting the value of produce, and the local demand he had for it; when I found that, generally speaking, with the exception of bark, he realized higher prices for the various sorts of timber and small wood than I can do here, and I framed my estimate, accordingly.

Sir James goes on to say: " He also calculated upon 343 tons of bark per annum; where " this

"this quantity is to come from, I cannot imagine; for, assuming that the number of acres of "old timber given by him, viz., 140, is correct, and that there are 80 trees on each acre, "which is, however, considerably more than there actually are, the number to be cut down "will be 11,200, or 2,240 for each of the five years. In the present year, it took the bark of "about 12 trees (including large old flitterns) to make a ton; so, at this rate, 2,240 would "only yield 187 tons, leaving 156 tons to be got from the flitterns, which I gather from Mr. "Brown's Report are too thin already," &c. &c.

I am not in the least surprised to find that Sir James "cannot imagine" where the 343 tons of bark, which I propose should be produced per annum, is to come from, when I consider that in his estimate for Bere Forest, for the year ended 31st March, 1853, he proposed there should be 225 tons produced, while the actual result was only 135, or 90 tons less than he himself had anticipated and estimated. In this, there was no great amount of practical judgment displayed, and it need excite little surprise, therefore, that he should be unable to comprehend where the quantity I propose is to come from. I may here remark, that the number of acres of old timber given by me, viz., 140, is founded on Sir James's own statement to me, while in the forest; he told me that he considered there were "from 130 to 140 "acres under old timber." I shall now give a statement, showing the grounds of my calculation for 343 tons of bark, to be produced from Bere Forest annually, for the next five years; it is as follows:—

	Tons.
Bark from 250 acres of promising plantations, to be thinned annually -	128
Bark from crop on 10 acres of inferior land - - - - - -	5
Bark from crop on 28 acres of matured timber - - - - -	210
Tons - -	343

Having given this statement, in illustration of my views as to how the quantity of bark is to be procured, I need not enter into further lengthened detail on the subject; I shall only observe, that it is my opinion that, under skilful, careful, and well-directed management, the quantity of bark thus stated, may pretty nearly be obtained annually. I say pretty nearly, because, in all calculations of this nature, it is impossible to arrive at the exact truth; a near approximation only can be expected; but I am of opinion, that these quantities may be realized on an average of years within a deviation of 15 per cent.

Sir James intimates that he gathers from my Report, that the plantations are too thin already for much bark to be derived from them. There is, however, nothing in my Report to countenance such a deduction from it. I do indeed say, "that there has been a consi- "derable degree of injudicious thinning," which I hold to be the indisputable truth; but I also state, "that, on many parts, the trees had not been sufficiently thinned for their various "ages." In short, it only requires the unprejudiced and candid perusal of my Report to see that I consider a very great deal of thinning to be necessary in Bere Forest, and that, if the parts most in need of relief are dealt with in the first place, the more open portions will gradually fall to be thinned by the time the closer ones shall have been operated upon. A constant annual succession of thinnings, will thus fall to be made, if attention is paid to the suggestions as to systematic and periodical operations in this department, laid down in my Report.

I now proceed to make a few remarks on what Sir James says, regarding the quantity of bark I propose to draw annually from Parkhurst. I propose from this source an annual value of 490 *l.*, while Sir James asserts, that such a sum is out of all proportion too much, even to a greater degree than the sum I estimate to be drawn for bark from Bere Forest. On examining the accounts of income and expenditure for Parkhurst Forest, for the three years commencing 1st April, 1850, and ending 31st March, 1853, I find that Sir James has drawn an average annual sum of 428 *l.* for bark from that forest, which is only 62 *l.*, or about seven per cent. less than I propose should now be realized. If, then, Sir James considers my estimate for Parkhurst out of all proportion exaggerated, as compared with that for Bere, that estimate being in reality only seven per cent. above what he himself has produced, it certainly seems to me a legitimate inference that, despite all he has urged to the contrary, he should have little difficulty in at least closely approaching my estimate for Bere, which he has here admitted to be moderate, compared with that for Parkhurst. The discrepancies between these statements of his own, it is for Sir James himself to reconcile; I shall only further remark, that they do convey to me the impression that Sir James either has a wish to throw a number of imaginary difficulties in the way of an improved state of pecuniary affairs, as regards these forests, or, that he has no practical knowledge of the subject. But, to go a little further into the subject of income.

I propose that there should be a clear annual income of 313 *l.* realized from Parkhurst Forest, after paying all expenses of the various operations, besides improving the condition of the forest generally. As a comparison with this return, which I consider may easily be secured under experienced management, it is only necessary to examine the financial result of Sir James's management of this forest, as shown in the accounts for the three years, already adverted to. From these accounts, it appears that, during the period of three years ending on the 31st March, 1853, there was only 30 *l.* 13 *s.* 4 *d.* handed to Government by Sir James as a clear rental for their woodlands in Parkhurst, being at the rate of 10 *l.* 4 *s.* 5 *d.* nearly per annum for 1,160 acres of land. This being the result of Sir James's management, it is hardly to be wondered that he should rise up in anger against a proposition that he should return Government 313 *l.* annually, instead of 10 *l.* 4 *s.* 5 *d.* This subject requires no further comment from me. The whole grounds of Sir James's imaginary difficulties are thus explained:

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explained: a forest is like a farm, depending upon management for profitable results; where there is an inexperienced, or careless manager, nothing can possibly proceed satisfactorily; but, as soon as it is subjected to experienced oversight, everything goes on well.

My statement as to how the estimated quantity of bark is to be produced from Parkhurst Forest, is as follows:—

	Tons.
Bark, from thinnings of 170 acres of promising plantations, to be thinned annually	80
Bark, from 60 acres of inferior crop, to be cleared annually	60
Tons	140

With reference to the sum which I have stated in my Report as being sufficient for "stripping, setting up, drying, and weighing bark," Sir James says, "He gives 20 *s.* per ton "as the price to be paid for these services in Bere, and 25 *s.* in Parkhurst. On referring to "Mr. Brown's book, 'The Forester,' p. 393, I find that he pays 47 *s.* per ton at Arniston, for "the same service, including felling the trees, but exclusive of weighing," &c.

This reference of Sir James to the statement given in "The Forester," of the cost of stripping and other work connected with the curing of bark on the estate of Arniston, has no real bearing whatever on the same work as it may be performed in the Forest of Bere; and this for the following reasons: on the estate of Arniston, where the plantations are comparatively small and detached, there is a greater amount of work necessary in stripping and preparing bark than can possibly be required in Bere Forest, where the plantations are all compact, and almost in one piece. In addition to this, the Arniston plantations are generally on a cold-bottomed soil, with a northern exposure, under which circumstances oak-bark is always more difficult to strip from the trees than where they are found growing on a more favourable soil and situation, such as those of Bere Forest. I may remark, however, that the statement given in "The Forester" as to the cost of stripping bark, is the result of an experiment made with people on days' wages, simply with a view to test at what cost all the branches of the operations would cost under that system; but, since that statement was published, and since I have been called upon to survey the Royal Forests, I have, with a special reference to these, made other experiments in respect to the cost of bark-stripping, with men working by piece; and, even under the disadvantageous circumstances of our comparatively small plantations, and their being situated on a cold soil, I have had the work of stripping, drying, and weighing performed at 18 *s.* per ton; thus proving that, in the south of England, and on the comparatively favourable soil in the Royal Forests, where the bark strips from the trees with the greatest ease, 20 *s.* per ton was an ample allowance; and I set this down in my estimate for Bere Forest, accordingly. My reason for allowing 25 *s.* for the stripping of bark in Parkhurst Forest was, that I considered that the wages of workpeople would be a little higher in the Isle of Wight, than in the neighbourhood of Bere Forest, and also that, from the cold nature of the soil, the bark would be more difficult to strip than in Bere.

I ought to remark, also, that Sir James mis-states the case in asserting that I allow him only 20 *s.* for the same services for which I pay 47 *s.*, on the estate of Arniston. If he will examine the statement he has referred to in "The Forester," he will find that, for 47 *s.* per ton of bark, I had every piece of the stripped timber cut and carried out of the woods and laid upon the roads, ready for sale, besides the stripping of the bark and every operation connected therewith; whereas, in the estimate I have given in reference to the expenditure for Bere Forest, I have made allowance for the cutting and carrying out of all the timber and small wood that may be stripped, under the head, "Felling, carrying, lotting, &c.," and meant the sum of 20 *s.* per ton to apply exclusively to the stripping, drying, and weighing of bark. This sum, I am confident, was sufficient for the services to be performed at the time that I drew up my Report; but now that the price of labour has risen, within the last six months, to the extent of one-fifth of what it was formerly, I should say, that it will now be necessary to add 4 *s.* to the sum I stated in my estimate, which would make it 24 *s.*, instead of 20 *s.*

Sir James proceeds to refer to the recommendations I made regarding the establishment for Bere Forest, and says, respecting the woodmen at Bull's Lodge Wood, "Mr. Brown "should, I think, have made more inquiry about the work to be done, before he gave so "decided an opinion. For example, he makes at Arniston no fagots, while there were made "in the West Walk, in the year ending 31st March, 1853, upwards of 53,000, which occu-"pied the time of five men six months and a half; this, consequently, would leave them "only five months and a half, to do all the rest of the work in the forest," &c.

Here, also, Sir James appears to misunderstand the bearing and true meaning of my Report. It is true that I have not, in my statement setting forth the expenditure for Bere Forest, made any direct reference to the making of fagots; but under the head, "Labour "preparation of produce for sale," I have made ample allowance for their manufacture in the sum of 360 *l.*, which stands opposite to "Felling, carrying, lotting, &c. &c.," as the following explanatory remarks will prove. On the estate of Arniston, I have never found the felling, carrying, and lotting of produce, such as Sir James has to deal with, cost more than one-sixth of its entire saleable value, while I have allowed Sir James fully one-fifth of the value of his timber-produce for preparation for sale, to cover the additional expense involved in the making of fagots. It is, therefore, my decided opinion that, under energetic and well-directed management, the sums set down in my Report were, at the time I wrote it, sufficient

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cient for all the purposes named, with the assistance of the number of labourers specified, though, of course, now, the enhanced price of labour will necessitate a corresponding addition to all the items under that head.

Sir James remarks, in conclusion, "I hope, I have satisfactorily shown that the estimate "made by Mr. Brown of the annual value which ought to be realized from these plantations, "is not correct, or one which can be realized."

From this, it is at once to be inferred that he has no intention the Crown should reap the advantages of any system of management other than the defective one he has been in the habit of pursuing, and which has led to a financial result such as would not, for a year, be tolerated on the estates of any private proprietor.

Sir James has the management of 2,622 acres of the Crown forests, from which he has produced an average rental, during a period of three years past, of 668 *l.* annually, while I propose there should be a clear annual return of 1,640 *l.*; this represents the true difference of opinion between us. I maintain that, under energetic and skilful management, the sum I state may be realized; Sir James says, that it cannot. I believe it will not, under Sir James's management; but I am firmly convinced that the forest is capable of producing it, under a thoroughly practical man, who would be willing to lay heart and hand to his business.

I have, &c.

The Right Hon. T. F. Kennedy. (signed) *James Brown.*

No. 16.

My Lords, Office of Woods, &c., 31 January, 1854.

I BEG leave to acknowledge the receipt of a letter, dated 5th January, written by command of your Lordships, by which I am informed that your Lordships have had before you my communication of the 24th ultimo, relative to Bere and Parkhurst Forests, and to the conduct of the deputy-surveyor thereof, and requesting that I will put your Lordships in possession of Mr. Brown's observations, in reply to those of Sir James Campbell, at the earliest possible period.

I have now the honour to state to your Lordships that, as the season was advancing, I felt it to be necessary to instruct the deputy-surveyor of Bere and Parkhurst Forests, to prepare an estimate for the year to commence on the 1st of April, 1854; and, as I entertain opinions totally opposite to those of Sir James Campbell, I instructed him to prepare an estimate entirely on his own responsibility, so that he should not be fettered in the free exercise of his judgment, in showing the manner in which he would propose to administer the two forests under his care, but reserving to myself an entire freedom to exercise my judgment on the estimates which Sir James Campbell should transmit.

I, accordingly, directed a letter to be addressed to Sir James Campbell on the 19th of January, for the above purpose, of which I annex a copy, for your Lordships' information; and in this letter I considered it indispensable that I should advert to the tone and character of Sir James Campbell's recent official correspondence; and I am desirous that your Lordships should be apprized of the terms of my communication to Sir James Campbell, which are comprehended in the latter portion of the letter of the 19th of January, hereto annexed.

In obedience to your Lordships' commands of the 5th of January, I am happy to have it now in my power to transmit to your Lordships, a copy of a Report which I have received from Mr. Brown, dated 27th January, being his reply to Sir James Campbell's statement on the subject of Bere and Parkhurst Forests. I have myself perused Mr. Brown's Report, and I will abstain from troubling your Lordships with observations in detail upon it, except so far as to say that Mr. Brown's reply entirely realizes my expectation, and confirms my confidence in his accuracy, judgment, and dispassionate views of the matters on which he has previously given his opinions; and, in my humble apprehension, Mr. Brown proves that he has very accurate and comprehensive views of the matters of which he treats, while Sir James Campbell shows that he has little knowledge, or experience, of the duties which he is called upon to perform, and it indeed is difficult to understand where he could have had the necessary training for the judicious and successful management of a property such as is committed to his charge. Until the result has proved the contrary, I should have expected that he would have been grateful for such advice and assistance as might have enabled him, with some success, to have performed the responsible duties for which it is quite natural that he should not be suited by habits or experience, antecedent to his appointment as deputy-surveyor of Bere and Parkhurst Forests.

Under all the circumstances of the case, it is extremely difficult to say how the interests of the Crown and the public are to be secured, even during the immediately coming year, as, on the one hand, it is impossible to allow the forests in question to continue to be managed as they hitherto have been; and, on the other hand, I greatly question whether, even if instructed, Sir James Campbell would be found able to conduct the service in the manner in which it ought to be managed, and he has not manifested a disposition to follow any ways except those which he has been accustomed to pursue, leading to results of a very unsatisfactory character.

I request that this letter, together with my letter addressed to Sir James Campbell on the 19th of January, annexed, as well as Mr. Brown's Report, now transmitted, may be

Bere and Parkhurst Forests.

added to the correspondence and papers now being printed under your Lordships' authority, in order that the subject of Bere and Parkhurst Forests may be complete.

Mr. Brown's Reports.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Honourable the Lords Commissioners of Her Majesty's Treasury.

No. 17.

Sir, West Lodge, 3 February, 1854.

I now transmit, as required by your letter of January 19th, my estimates for Bere and Parkhurst Forests, for the year ending 31st March, 1855, together with a list of the trees marked for felling in Bere Forest, none of which are fit for the service of the navy. I have excluded, as desired, all expenditure for planting and draining; but, as I presume it was not intended to exclude the cleaning of drains which actually exist in the plantations, I have made entries for this purpose; also, for the purchase of plants, seeds, &c., to stock the nurseries. The sum of 5 *l.*, for repairs of lodges, &c. in each forest, is only for such casual repairs as may occur, there being no actual outlay, at present, required for this purpose. I had hoped to be able to include an estimate of the cost of erecting a bark-shed in Parkhurst Forest, which would be a very desirable acquisition, and would increase the value of the bark, perhaps 5 *s.* per ton, by saving cartage to Newport, or Carisbrooke, besides the rent of the shed itself; but, after waiting ten days, I have been informed by the person to whom I wrote for it, that he will send it to me next week. I have not thought it right to delay any longer sending my annual estimates; when I receive that for the bark-shed, I will send it to you, for your consideration, with any remarks I may deem necessary.

With respect to the latter part of your letter, of the 19th January, in which you advert to the tone and character of my recent official letters, and especially of that of 10th November, 1853, and state that you consider them highly unbecoming and improper, as well as disrespectful to you, as a Commissioner of Woods, and that you make this statement on grounds entirely apart from all consideration of the merit or demerit of Mr. Brown's Reports, I have to state, that I exceedingly regret that you consider you have cause to find fault with my official correspondence. It has been as far from my intention as it would be from my duty, to make use of any tone, in my official letters, unbecoming, improper, or disrespectful to you. I intended my remarks, in the letter of November 10th, to apply solely to Mr. Brown, whose reports are, I considered, a perfectly fair subject of comment.

I am, &c.
(signed) *Ja. Campbell.*

The Right Honourable T. F. Kennedy.

No. 18.

My Lords, Office of Woods, &c., 8 February, 1854.

I beg leave to refer to my letter of the 31st of January, with which I transmitted to your Lordships a copy of a letter, directing Sir James Campbell to prepare an estimate, and making some observations on the tone of his official correspondence.

I now beg leave to annex, for your Lordships' information, a copy of a letter which I have received from Sir James Campbell, dated the 3d February, transmitting an estimate for the year to commence 1st April, 1854; and, before concluding this letter, I shall make some observations with reference to that estimate.

I am glad to observe, that Sir James Campbell expresses his regret, that I had considered that I had any cause to be dissatisfied with his official correspondence, and that he intended his remarks, in his letter of the 10th November, to apply solely to Mr. Brown, whose reports he considered a perfectly fair subject for comment. I entirely admit that Mr. Brown's reports were a fair subject of comment, in the spirit of calm and fair discussion, but not in the language employed by Sir J. Campbell; and I must remark, that several of his observations, in his letter of the 10th of November, applied directly to opinions expressed by myself, not by Mr. Brown, and I had informed Sir James Campbell of the high opinion I entertained of Mr. Brown; consequently, whatever difference of opinion from Mr. Brown he might entertain, the concluding observations of his letter of the 10th of November, with respect to Mr. Brown, were unbecoming and disrespectful.

With reference to the estimate now transmitted by Sir James Campbell, it is necessary that I should annex, for your Lordships' information, copy of a letter which I addressed, on the 7th of November, to Mr. Brown on the subject of estimates which he had framed, and on which it appeared to me that some alterations must be made, in order to render them applicable under the altered circumstances as to the price of labour and produce; and I have recently received from Mr. Brown his reply to this letter, as applicable to Delamere, Alice Holt, Woolmer, and Bere, and Parkhurst Forests. By this report of Mr. Brown, his estimates are now rendered applicable to the existing scale of prices, as regards these five forests; and, in transmitting Sir James Campbell's estimates for Bere and Parkhurst Forests, I will now make a short statement, contrasting the proposals of Sir James Campbell for the coming year, with the recommendations of Mr. Brown for the same year.

It

Bere and Parkhurst Forests.

Mr. Brown's Reports.

It is to be observed, however, in the outset, that a distinction is to be taken between Sir James Campbell's and Mr. Brown's estimates. That in Sir James Campbell's estimate there is no expenditure included for planting and draining, nor for certain operations for clearing spaces of the forests, while, in Mr. Brown's estimate, there is expenditure for these purposes. There is, therefore, in Mr. Brown's estimate, both a larger produce and an expenditure, which is not included in Sir James Campbell's estimate; but, taking these differences into consideration, there is a large difference in the proposed financial result of the year, by the respective parties.

The contrast is as follows: —

Bere Forest.

				£. s. d.
Sir James Campbell's Estimate:				
Produce	£. 1,328	6	–	
Estimated Expenditure	1,013	4	–	
Estimated Net Income				315 2 –
Mr. Brown's Estimate:				
Produce	3,198	–	–	
Estimated Expenditure	1,772	9	–	
Estimated Net Income				1,425 11 –
Estimated excess of Income, by Mr. Brown's Estimate, over that of Sir J. Campbell			£.	1,110 9 –

Parkhurst Forest.

				£. s. d.
Sir James Campbell's Estimate:				
Produce	£. 855	–	–	
Estimated Expenditure	740	8	–	
Estimated Net Income				114 12 –
Mr. Brown's Estimate:				
Produce	1,342	–	–	
Estimated Expenditure	1,025	–	–	
Estimated Net Income				317 – –
Estimated excess of Income by Mr. Brown's Estimate over that of Sir James Campbell			£.	202 8 –

I can, in my own mind, entertain no doubt that Mr. Brown's is the judicious system of management; that it is calculated to confer permanent value upon the forests, and, it at the same time, realizes a much larger present revenue available for the public service.

I must remark, that I trouble your Lordships with a copy of a paper which has been transmitted to me by Sir James Campbell, along with his estimate, in which he gives a list of trees which he proposes to fell, as matured trees, in three of the divisions of Bere Forest, amounting in number to 878 trees, 9,946 feet, being an average of a fraction more than 11 feet per tree. I have no reason to doubt that it is proper to fell those trees which are to be considered as matured trees, but of which Sir James Campbell states, that none are fit for the service of the navy, which clearly is so from their very small size. I think the circumstance is important, as showing that the ground has been badly occupied by this class of trees, and that the ground ought to have been sooner occupied by a class of trees likely to arrive at valuable dimensions.

Under all the circumstances, it will be necessary that I should, at an early period, receive your Lordships' instructions as to the course of management to be followed in Bere and Parkhurst Forests, for the year to commence on the 1st of April, 1854, and I beg leave to refer to an official letter, which I addressed to the Chancellor of the Exchequer, on the 1st of February, on the subject of the Annual Estimates, and laying before him the difficulties in which I find myself placed.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Honourable the
Lords Commissioners of Her Majesty's Treasury.

Bere and Parkhurst Forests.

Mr. Brown's Reports.

BERE FOREST.

ABSTRACT of Timber marked for Felling.

West Walk - - -	552	oak-ends, estimated to contain - -	5,947 feet.
East Walk - - -	175	- - - - - - - - -	2,311 „
Bull's Lodge Wood -	151	- - - - - - - - -	1,688 „
Totals - -	878	- - - - - - - - -	9,946 „

Besides the necessary thinnings of the young plantations.

(signed) *Ja. Campbell.*

BERE FOREST.

LIST of OAK TIMBER, marked for Felling in the Year 1854.

WEST WALK.

Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.
1	6	47	9	93	6	139	11	185	12
2	7	48	10	94	9	140	17	186	7
3	10	49	11	95	6	141	9	187	15
4	7	50	6	96	8	142	10	188	16
5	8	51	27	97	7	143	12	189	14
6	7	52	6	98	15	144	15	190	19
7	6	53	13	99	10	145	15	191	13
8	6	54	13	100	10	146	12	192	7
9	6	55	9	101	12	147	10	193	13
10	7	56	10	102	20	148	10	194	11
11	7	57	10	103	9	149	14	195	7
12	14	58	8	104	7	150	10	196	14
13	5	59	15	105	13	151	14	197	8
14	6	60	8	106	8	152	15	198	10
15	6	61	8	107	12	153	14	199	8
16	12	62	10	108	20	154	25	200	7
17	8	63	8	109	9	155	5	201	10
18	7	64	10	110	22	156	13	202	7
19	5	65	6	111	5	157	6	203	14
20	6	66	6	112	12	158	14	204	7
21	6	67	13	113	11	159	11	205	7
22	16	68	9	114	15	160	6	206	7
23	5	69	5	115	7	161	11	207	20
24	8	70	7	116	20	162	16	208	7
25	9	71	13	117	16	163	5	209	10
26	8	72	13	118	13	164	7	210	7
27	5	73	6	119	10	165	8	211	7
28	5	74	9	120	5	166	10	212	8
29	11	75	11	121	12	167	9	213	10
30	12	76	5	122	11	168	14	214	7
31	8	77	5	123	16	169	15	215	12
32	9	78	6	124	9	170	11	216	10
33	8	79	11	125	11	171	16	217	13
34	8	80	13	126	11	172	11	218	9
35	7	81	12	127	7	173	11	219	10
36	18	82	14	128	10	174	6	220	10
37	21	83	7	129	12	175	6	221	12
38	7	84	6	130	7	176	13	222	7
39	7	85	7	131	16	177	7	223	7
40	7	86	10	132	15	178	7	224	7
41	15	87	12	133	20	179	11	225	16
42	15	88	10	134	10	180	7	226	14
43	14	89	12	135	11	181	13	227	10
44	25	90	12	136	16	182	13	228	10
45	6	91	7	137	13	183	14	229	11
46	10	92	8	138	12	184	18	230	7

Bere and Parkhurst Forests.

Mr. Brown's Reports.

Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.
231	10	296	13	361	7	426	8	490	16
232	7	297	11	362	12	427	7	491	10
233	14	298	7	363	9	428	7	492	18
234	20	299	7	364	10	429	13	493	16
235	16	300	7	365	10	430	7	494	16
236	18	301	7	366	15	431	15	495	20
237	10	302	18	367	7	432	7	496	17
238	11	303	11	368	12	433	8	497	10
239	11	304	7	369	9	434	7	498	15
240	7	305	7	370	7	435	8	499	10
241	12	306	7	371	14	436	8	500	7
242	7	307	7	372	10	437	10	501	11
243	7	308	8	373	9	438	7	502	10
244	8	309	14	374	7	439	10	503	25
245	16	310	18	375	16	440	20	504	8
246	15	311	8	376	13	441	15	505	10
247	8	312	16	377	9	442	7	506	7
248	8	313	7	378	9	443	10	507	11
249	8	314	7	379	9	444	11	508	7
250	10	315	9	380	16	445	10	509	15
251	7	316	7	381	15	446	12	510	8
252	7	317	16	382	7	447	22	511	16
253	16	318	8	383	7	448	12	512	10
254	12	319	10	384	7	449	7	513	10
255	11	320	16	385	14	450	7	514	13
256	13	321	7	386	7	451	7	515	18
257	12	322	10	387	7	452	7	516	7
258	11	323	10	388	7	453	18	517	11
259	12	324	16	389	7	454	7	518	7
260	12	325	8	390	9	455	11	519	10
261	7	326	7	391	8	456	7	520	10
262	18	327	7	392	16	457	8	521	10
263	12	328	7	393	9	458	12	522	8
264	8	329	10	394	12	459	12	523	8
265	8	330	7	395	11	460	7	524	7
266	13	331	8	396	13	461	7	525	7
267	11	332	10	397	7	462	18	526	7
268	12	333	17	398	10	463	10	527	8
269	7	334	9	399	7	464	10	528	16
270	7	335	8	400	7	465	8	529	18
271	8	336	8	401	15	466	8	530	8
272	9	337	10	402	7	467	17	531	7
273	8	338	9	403	9	468	11	532	9
274	8	339	13	404	18	469	8	533	7
275	8	340	8	405	7	470	7	534	11
276	16	341	20	406	7	471	17	535	7
277	10	342	11	407	10	472	7	536	16
278	19	343	12	408	8	473	7	537	16
279	7	344	10	409	12	474	11	538	20
280	15	345	10	410	10	475	16	539	20
281	8	346	7	411	20	476	15	540	11
282	8	347	7	412	10	477	7	541	11
283	10	348	9	413	9	478	20	542	16
284	8	349	7	414	7	479	10	543	8
285	8	350	7	415	11	480	16	544	23
286	20	351	16	416	25	481	7	545	12
287	20	352	8	417	11	482	14	546	16
288	14	353	8	418	9	483	10	547	13
289	9	354	15	419	7	484	7	548	24
290	10	355	8	420	10	485	9	549	20
291	20	356	18	421	16	486	10	550	22
292	8	357	20	422	15	487	10	551	20
293	8	358	16	423	15	488	15	552	10
294	16	359	7	424	10	489	11		
295	14	360	7	425	8				

TOTAL Feet, in West Walk - - - 5,947

Bere and Parkhurst Forests.

Mr. Brown's Reports.

East Walk.

Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.
1	7	36	7	72	8	107	8	141	9
2	11	37	9	73	22	108	35	142	30
3	15	38	21	74	11	109	10	143	15
4	15	39	7	75	16	110	7	144	11
5	32	40	11	76	7	111	11	145	14
6	8	41	8	77	8	112	7	146	10
7	9	42	7	78	16	113	7	147	30
8	11	43	10	79	19	114	7	148	20
9	20	44	8	80	17	115	7	149	40
10	9	45	7	81	8	116	7	150	30
11	18	46	17	82	16	117	7	151	17
12	18	47	18	83	13	118	7	152	32
13	32	48	19	84	18	119	7	153	22
14	10	49	10	85	7	120	7	154	25
15	7	50	13	86	8	121	8	155	19
16	9	51	13	87	10	122	7	156	40
17	11	52	12	88	8	123	7	157	17
18	7	53	15	89	7	124	7	158	11
19	8	54	12	90	7	125	7	159	13
20	7	55	13	91	7	126	7	160	7
21	14	56	21	92	7	127	10	161	9
22	14	57	17	93	7	128	20	162	7
23	10	58	7	94	7	129	7	163	8
24	14	59	8	95	9	130	7	164	85
25	7	60	7	96	7	131	10	165	80
26	16	61	7	97	10	132	10	166	9
27	7	62	8	98	10	133	13	167	8
28	12	63	7	99	9	134	12	168	11
29	11	64	8	100	15	135	18	169	7
30	10	66	9	101	9	136	12	170	8
31	10	67	10	102	13	137	8	171	40
32	7	68	13	103	7	138	20	172	38
33	12	69	7	104	12	139	14	173	7
34	8	70	17	105	28	140	8	174	7
35	8	71	10	106	11				

Total Feet in East Walk - - - 2,311

Bull's Lodge Wood.

Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.
1	10	22	12	43	14	64	19	85	9
2	7	23	12	44	11	65	12	86	10
3	12	24	12	45	7	66	12	87	10
4	18	25	10	46	14	67	9	88	7
5	17	26	11	47	15	68	11	89	7
6	7	27	14	48	8	69	11	90	15
7	14	28	13	49	7	70	13	91	19
8	7	29	7	50	7	71	14	92	7
9	18	30	7	51	7	72	17	93	13
10	11	31	7	52	13	73	13	94	7
11	12	32	8	53	10	74	18	95	10
12	10	33	19	54	8	75	12	96	7
13	13	34	7	55	7	76	16	97	7
14	9	35	7	56	7	77	14	98	10
15	7	36	14	57	7	78	8	99	11
16	7	37	16	58	8	79	12	100	20
17	14	38	10	59	7	80	20	101	11
18	11	39	7	60	7	81	7	102	9
19	18	40	9	61	21	82	18	103	7
20	9	41	7	62	7	83	7	104	16
21	12	42	7	63	17	84	9	105	12

Bere and Parkhurst Forests.

Mr. Brown's Reports.

Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.	Number of Trees.	Estimated Number of Feet.
106	10	116	20	125	7	134	9	143	8
107	16	117	10	126	7	135	15	144	9
108	16	118	20	127	10	136	8	145	7
109	15	119	7	128	10	137	7	146	8
110	18	120	10	129	11	138	11	147	7
111	22	121	16	130	7	139	7	148	9
112	13								
113	11	122	15	131	7	140	11	149	9
114	13	123	19	132	15	141	7	150	8
115	14	124	16	133	14	142	8	151	7

Total Feet at Bull's Lodge Wood - - - 1,688

ESTIMATE of the Probable Expenditure for Bere Forest, in the Year ending on the 31st March, 1855.

1. Planting, New Works, Improvements, &c.

	Nurseries. £. s. d.	£. s. d.
Labour:		
Planting, including digging holes	8 – –	
Transplanting	15 – –	
Trenching	10 – –	
Carting	– 10 –	
		33 10 –
Trees, plants, seeds, &c., including carriage		20 – –
Total for Planting New Works, Improvements, &c. £.		53 10 –

2. Maintenance and General Management.

	£. s. d.	£. s. d.	£. s. d.
Salaries and Allowances:			
Deputy-surveyor, salary	150 – –		
Keep of horse	30 – –		
		180 – –	
Foreman, or Superintendent, salary		54 12 –	
Woodmen		62 8 –	
			297 – –

	Nurseries. £. s. d.	Plantations or Inclosures. £. s. d.	Totals. £. s. d.	
Labour Maintenance:				
Walls, fences, gates, hedges, &c.	– –	27 10 –	27 10 –	
Roads, rides, drives, walks, &c.	– –	20 – –	20 – –	
Drains and ditches	– –	25 – –	25 – –	
Thinning and clearing	– –	10 – –	10 – –	
Space-digging	3 – –	– –	3 – –	
Storing	– –	5 – –	5 – –	
Preparing timber, &c. for repairs	– –	5 – –	5 – –	
Carting	– –	31 4 –	31 4 –	
General labourer, at deputy-surveyor's residence	– –	31 4 –	31 4 –	
				157 18 –
Materials and Artificers, Bills for:				
Houses, offices, lodges, &c.	– –	5 – –	5 – –	
Walls, fences, gates, hedges, &c.; timber, 8*l.*	– –	20 – –	20 – –	
Drains and ditches	– –	3 – –	3 – –	
				28 – –
Carried forward £.				482 18 –

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		£. s. d.	£. s. d.
Brought forward			482 18 –
Labour: Preparation of Produce for Sale:			
Timber: Felling, carting, and carrying	9,946 feet	48 – –	
Flitterns and Saplings: Felling, carting, and carrying	Not known	15 – –	
Bark:			
Stripping { Flittern	30 tons	42 15 –	
Stripping { Timber	86 tons	96 – –	
Setting up and drying		3 – –	
Tying up and weighing	116 tons	11 12 –	
Poles: Cutting, making, and carrying	Not known	15 – –	
Cordwood, or Stackwood: Ditto	Ditto	20 – –	
Fagots, or Bavins: Ditto	Ditto	130 – –	
Delivering produce		31 4 –	
			412 11 –
Machinery, implements, harness, repairs of ditto, and general ironmongery			8 – –
Provender for horses, &c.			28 – –
Contingent Expenses of Forest-Officers; viz,		£. s. d.	
Travelling expenses of deputy-surveyor and others (not in the nature of allowances)		1 – –	
Stationery		4 – –	
Postage and postal attendance		15 – –	
Carriage of parcels		1 – –	
Banker's commission on remittances, and bill-stamps for imprests		– 5 –	
			21 5 –
Rates, taxes, tithes, or allowances in lieu thereof			4 – –
Contributions to schools, &c.			3 – –
TOTAL for Maintenance and General Management		£.	959 14 –

ABSTRACT.

	£. s. d.
1. Planting, New Works, Improvements, &c.	53 10 –
2. Maintenance and General Management	959 14 –
Probable Expenditure in the Year 1854–55	£. 1,013 4 –

ESTIMATED PRODUCE for 1854–55.

DESCRIPTION OF PRODUCE.	PRIVATE CONTRACT. Quantity, Weight, or Measurement.	PRIVATE CONTRACT. Amount.	TOTALS.
		£. s. d.	£. s. d.
Timber	9,946 feet	497 6 –	
Flitterns and Saplings	Not known	75 – –	
Bark	116 tons	393 – –	
Poles	Not known	30 – –	
Cordwood, or Stackwood	ditto	70 – –	
Fagots, or Bavins	ditto	240 – –	
			1,305 6 –
Value of timber, &c. supplied for forest uses (*vide* Expenditure)			8 – –
Rents			15 – –
Estimated Produce for 1854–55		£.	1,328 6 –

	£. s. d.
Estimated Produce	1,328 6 –
Estimated Expenditure	1,013 4 –
Estimated Net Income	£. 315 2 –

(signed) *Ja. Campbell*, Deputy-Surveyor.

ESTIMATE of the Probable EXPENDITURE for PARKHURST FOREST, in the Year ending on the 31st March, 1855.

1. PLANTING, NEW WORKS, IMPROVEMENTS, &c.

	Nurseries.					
Labour:	£.	s.	d.	£.	s.	d.
Planting, including digging holes	5	–	–			
Transplanting	10	–	–			
Trenching	5	–				
Carting	–	10	–			
				20	10	–
Trees, plants, seeds, &c., including carriage				10	–	–
TOTAL for Planting, New Works, Improvements, &c. £.				30	10	–

2. MAINTENANCE AND GENERAL MANAGEMENT.

	£.	s.	d.	£.	s.	d.
Salaries and Allowances:						
Deputy-Surveyor	50	–	–			
Foreman, or Superintendent, salary	52	–	–			
				102	–	–

	Nurseries.			Plantations, or Inclosures.			Totals.			
Labour Maintenance:	£.	s.	d.	£.	s.	d.	£.	s.	d.	
Walls, fences, gates, hedges, &c.	–	–		10	–	–	10	–	–	
Roads, rides, drives, walks, &c.	–	–		5	–	–	5	–	–	
Drains and ditches	–	–		25	–	–	25	–	–	
Thinning and clearing	–	–		100	–	–	100	–	–	
Space-digging	5	–	–	–		–	5	–	–	
Preparing timber, &c. for repairs	–	–		3	–	–	3	–	–	
Carting	–	–		31	4	–	31	4	–	
										179 4 –
Materials and Artificers, Bills for:										
Houses, offices, lodges, &c.	–	–		5	–	–	5	–	–	
Walls, fences, gates, hedges, &c., timber	–	–		5	–	–	5	–	–	
Drains and ditches	–	–		20	–	–	20	–	–	
										30 – –
Labour: Preparation of Produce for Sale:										
Timber: Felling, carting, and carrying				Not known			12	–	–	
Flitterns and Saplings:										
Marking, measuring, and lotting				–		–	4	–	–	
Felling, carting, and carrying				–		–	17	10	–	
Bark:										
Stripping Flittern				50 tons			90	–	–	
Stripping Timber				20 tons			23	–	–	
Setting up and drying				–		–	3	–	–	
Tying up, and weighing				–		–	8	–	–	
Poles: Cutting, making, and carrying				Not known			70	–	–	
Cordwood, or Stackwood: Ditto				Ditto			6	–	–	
Fagots, or Bavins: Ditto				Ditto			90	–	–	
Delivering produce				–		–	31	4	–	
										354 14 –
Machinery, implements, harness, repairs of ditto, and general ironmongery										6 – –
Provender for horses, &c.										14 – –
Carried forward £.										685 18 –

Bere and Parkhurst Forests.

Mr. Brown's Reports.

	£. s. d.	£. s. d.
Brought forward	- - -	685 18 -
Contingent Expenses of Forest-Officers; viz.,		
Travelling expenses of deputy-surveyor and others (not in the nature of allowances)	20 - -	
Stationery	1 - -	
Postage, and postal attendance	1 10 -	
Carriage of parcels	- 10 -	
Banker's commission on remittances, and bill-stamps for imprests	1 - -	
		24 - -
Total for Maintenance and General Management - - - £.		709 18 -

Abstract.

	£. s. d.
1. Planting, New Works, Improvements, &c	30 10 -
2. Maintenance and General Management	709 18 -
Probable Expenditure in the Year 1854–55 - - £.	740 8 -

Estimated Produce, 1854–55.

DESCRIPTION OF PRODUCE.	PRIVATE CONTRACT. Quantity, Weight, or Measurement.	PRIVATE CONTRACT. Amount.	TOTALS.
		£. s. d.	£. s. d.
Timber	Not known	25 - -	
Bark	70 tons	260 - -	
Poles	Not known	330 - -	
Cordwood, or Stackwood	Ditto	25 - -	
Fagots, or Bavins	Ditto	200 - -	
Gravel	- - -	10 - -	
			850 - -
Value of timber, &c., supplied for forest uses (*vide* Expenditure) - - -			5 - -
Estimated Produce for 1854–55 - - - £.			855 - -

	£. s. d.
Estimated Produce	855 - -
Estimated Expenditure	740 8 -
Estimated Net Income - - - £.	114 12 -

No. 19.

Sir, Treasury Chambers, 27 February, 1854.

Having laid before the Lords Commissioners of Her Majesty's Treasury your letter of the 31st ultimo, transmitting a copy of a Report from Mr. Brown, dated the 27th ultimo, being his reply to the statements of Sir James Campbell, on the subject of Bere and Parkhurst Forests, I am directed to state that, adverting to the character of the observations contained in Mr. Brown's Report, my Lords are of opinion that it should be communicated to Sir James Campbell for any comments that he may wish to offer upon it.

My Lords request, therefore, that you will forward a copy of the Report to Sir James Campbell, if you have not already done so.

I am, &c.

The Right Hon. T. F. Kennedy. (signed) *James Wilson.*

No. 20.

My Lords, Office of Woods, &c., 28 February, 1854.

I beg leave to acknowledge the receipt of Mr. Wilson's letter, of yesterday's date, acquainting me that your Lordships had had before you my letter of the 31st ultimo, transmitting a copy of a Report from Mr. Brown, dated the 27th January, being his reply to the statements of Sir James Campbell on the subject of Bere and Parkhurst Forests, and in which I am acquainted that your Lordships, adverting to the character of the observations contained in Mr. Brown's Report, are of opinion that it should be communicated to Sir James Campbell, for any comments which he may wish to offer upon it, and further requesting that I would forward a copy of the Report to Sir James Campbell, if I have not already done so.

In reply, I have to acquaint your Lordships that, by the post of this day, I will transmit a copy of Mr. Brown's Report to Sir James Campbell, and that I had not already done so, because I did not think it right to take any further steps on the subject of the discussion respecting these forests without special instructions from your Lordships, not knowing whether your Lordships might, or might not, desire that the statements of opposite and conflicting opinions should be further continued between parties who it is clear are not likely to come to an agreement in statement and opinion.

I bore in mind my two letters, addressed to your Lordships on the 31st January and 8th February respectively, and I did not think that I ought to take any further step without receiving some instruction from your Lordships. I was also desirous, if possible, that additional controversial Reports should be avoided, and that Mr. Brown might thereby be enabled to give his undivided attention to his practical duties in Dean Forest, which cannot fail to be of a very onerous and important character, and to suffer materially if his attention should be abstracted from them.

I have, &c.

The Right Hon. the
Lords Commissioners of Her Majesty's Treasury. (signed) *T. F. Kennedy.*

No. 21.

Sir, Office of Woods, &c., 28 February, 1854.

I am commanded by the Commissioner in charge of Her Majesty's Woods and Forests, to state to you, that on the 31st ultimo, there was transmitted to the Lords Commissioners of Her Majesty's Treasury copy of a Report by Mr. Brown, dated the 27th of January, on the subject of Bere and Parkhurst Forests, and that, by desire of their Lordships, communicated to the Commissioner by letter of yesterday's date, a copy of that Report is herewith transmitted to you, for any observations you may wish to offer upon it.

I am, &c.

Sir James Campbell, Bart. (signed) *G. S. Bedford.*

Bere and Parkhurst Forests.

No. 22.

Mr. Brown's Reports.

Sir, West Lodge.

I HAVE received a copy of a Report by Mr. Brown, dated 27th January 1854, on the subject of Bere and Parkhurst Forests, which has been transmitted to me by desire of the Lords Commissioners of Her Majesty's Treasury, for any observations I may wish to offer upon it. Before proceeding to make his Report, Mr. Brown adverts to a letter of mine, addressed to you, bearing date the 10th of November 1853, on the subject of the proper size of trees for planting in making plantations. I see no reason to alter the opinions I expressed in that letter, in consequence of anything said by Mr. Brown. Every one who has seen Bere Forest, excepting him (and he only as an afterthought), agrees that nothing can be more satisfactory than it is. The fact that Bere Forest was planted with trees of 4 ½ feet high and upwards, is a sufficient refutation of Mr. Brown's assertions as to the impropriety of using such large plants; and I shall show, in the course of my remarks on his general Report, that the comparison which he makes between "the crop of 38 years of "age, with an average diameter of 8 ½ inches, at six feet from the ground," and the plantations at Arniston, is not fair, as he has not given the correct diameter of the trees in Bere. I have no doubt, from an experience of nearly 12 years in this forest, that it was a sacrifice of valuable property to get rid of the plants in the nursery, which were some of the finest I ever saw. Mr. Brown states, for my information, that nothing is more easy than to check the underwood effectually, by cutting it down in the summer, and laying bare the roots. Doubtless nothing is more easy, if such should be desired, but it would be a loss of income to do so here; at Arniston, no faggots are, I believe, made, which accounts for Mr. Brown's views on the subject; but here, independently of the income to be derived from it, the shoots, when about two years old, are the only bonds we have for tying faggots. If the underwood was destroyed, and the Crown had to purchase the bonds elsewhere, we should have to pay from 1 *s.* to 1 *s.* 6 *d.* per 100 extra, and this, coupled with the loss of the sale of underwood, would be a serious consideration. I prefer to cut it back for a few years, till the young plants have grown above it, and then to reap what benefit I can get from it as produce.

With regard to my remarks on that part of his first Report on Parkhurst Forest, which I stated gave a contradictory account of that portion of the forest of 400 acres which had a promising crop of oak-trees, I again repeat that Mr. Brown's assertion, that the oaks, on any part of the forest, had never been relieved, although 30 years of age, is "utterly untrue," even if he had found, as he states, "the oaks and pines in one almost impenetrable mass" on any part. It is nevertheless true, that alternate lines of fir had been cut away by me since I had charge of the forest; and the conversation which he mentions as having taken place with the foreman, but of which neither of us have the slightest recollection, must have had reference, either to relieving the oaks a second time, or to thinning the oaks themselves, as the case may be, and not to relieving them for the first time. I repeat distinctly, that "no "part of these woods, of 30 years of age, had been left unthinned, up to the period Mr. "Brown visited the forest." He goes on to say, that "Sir James does not appear to think "that an oak-crop is too thin, or has been overthinned, when only 200 trees are found on "the acre, at 30 years of age." I ask him, in reply, where he found only 200 trees per acre, at 30 years of age? for I assert, most positively, that he never found any such number. He only counted two places, which were within a short distance of each other, on one of which (the most sheltered) the number was 244, and on the other (which was the windward side) the number was 300; making the average of 272. The statement, therefore, in his first Report, that "on many parts, he found more than 330, and, on many other parts, only 200," and his deductions from it, in his second Report, are purely imaginary, seeing he never counted any such numbers, or any numbers at all, but the two I have mentioned; and of this I am positive, as I was with him the whole time of his visit to the forest. Mr. Brown appears to have only one criterion by which to judge of the number of trees which ought to be on an acre, viz., the age. The size of the trees is a much more proper guide, in this respect, for surely it is only a theorist who will contend that there ought to be only the same standard number on an acre of poor soil, in an exposed situation, at a given age, where the trees grow slowly, and are consequently small, as there ought to be on an acre of good soil, in a sheltered situation, where they are of larger size; but he appears, throughout his Reports, to take 200 as his theoretical standard at 40 years of age. In many situations, less than 100 should only stand, and, in others, 300 and upwards, might not be too many. As to his account of a conversation which, he says, took place "in presence of the foreman, "in which I agreed with him that the crop, on many places, was over-thinned, and even "gave the foreman, in his presence, orders not to thin so severely in future," I believe this conversation to be purely imaginary, and the foreman asserts, most decidedly, that he never received any such orders from me, either in Mr. Brown's presence, or at any other time. Mr. Brown goes on to state that "on many parts of the forest, the trees are found too "close, in the most sheltered situations, while, on many of the exposed portions, they are "found over-thinned." This is a sweeping condemnation, and I can only hope, before any decision is come to on the subject, that some persons practically acquainted with oak woodlands may be sent to view the trees, to judge which of us is correct in his statement.

With reference to the second division of land and crop in the forest, consisting of 460 acres of inferior soil, Mr. Brown makes some remarks (which it is unnecessary for me to copy

copy into this letter), and calls on me to prove that anything he has stated in regard to it is not the truth. I agree with him, that the soil is inferior, but I go further, and maintain that some of it is by far the most inferior in the forest, and that it is because of this that the crop is, in some parts, unhealthy. I agree with him, also, that thinning has been too long delayed; indeed, I have never denied this, for I stated in my evidence before Lord Duncan's Committee, in 1849, that I thought Parkhurst Forest had not been thinned enough; and there is no doubt of the fact; but, until November 1848, I had not Parkhurst under my charge, and I am not, therefore, responsible, in any way, for its previous management. I have endeavoured to rectify this error as regularly and as quickly as the means at my command for so considerable an undertaking, and the safety of the crop, would allow. Had the system of thinning I have pursued, been begun 10 years sooner, there is no doubt the forest would have been in a more regular state than it now is. I agree with Mr. Brown, also, that many wet parts of the forest had not been sufficiently drained; and the proof of this my opinion is, that, long before he visited the forest I had begun to rectify it, and have made a considerable extent of new drains. With regard to my remarks on the "300 acres of very "inferior land, under a crop chiefly of old oak-coppice of stunted growth," which Mr. Brown recommended should be planted with Scotch-pines, as being the only crop that would grow profitably upon it, Mr. Brown thinks I have "misunderstood" the true intent and meaning of "his Report." I am sorry if I have done so, but I conclude he means all those portions which have not already been planted since the inclosure of the forest, and which are generally covered with oak-coppice; if so, my remarks were strictly applicable, because the unplanted land is principally a stiff clay, and is to be found partly in wet hollows, and partly on the slopes, and the greater part is not, by any means, of so inferior a quality as much that has already been planted. But I think Mr. Brown and I have misunderstood each other as to the meaning of the word "coppice" in this instance, because he says, that my "opinion as "to the healthy condition of oak-trees is very different from his," and refers to any unprejudiced practical man whether it (that is, the "coppice") "will ever become of any important "value on the land it occupies." This leads me to the supposition that he means, by the word "coppice," the stunted timber which grows in parts of the forest, while I, on the other hand, understand by the word "coppice" the underwood which has sprung from the stoles of oak-trees formerly cut down, and which is strong and vigorous, "pointing out," as I said in my remarks on his first Report, "the oak-plant as the proper one for the soil." I repeat that the "coppice" (as understood in the south of England) "is strong and healthy; but I agree "that the coppice-shoots, which have been allowed to grow into small timber, are stunted," and maintain that the oak, if planted and growing on its own roots, instead of (as at present) on the roots of old timber long since cut down, is the only tree which will attain valuable dimensions in this soil. I therefore advised (and still advise) replanting with oak; and, instead of having so many Scotch fir-nurses, to have a proportion of larch plants, "which realize, as thinnings, more than double what Scotch-fir does;" and I have no hesitation in repeating, "that a middling crop of larch and oak would pay infinitely better than "two good crops of Scotch-fir." The Scotch-fir in this district, is of little value; the temporary crop should, in my judgment, if equally good as a nurse, be adapted to the wants of the district in which the planting is done. Mr. Brown goes on to say, with reference to the last quotation from my remarks on his first Report, "taking this statement just as it stands, "it does seem to me a legitimate question how it is that middling crops of oak and larch, "for the raising of which Sir James seems to have such a special predilection, should so "utterly have failed to yield to the Crown even a middling return, as rent." Whether the question raised in this, and the subsequent passages, is legitimate or not, depends entirely on there being any just grounds on which to raise it. There is scarcely any larch in the forest, as Mr. Brown ought to know, having inspected it, and only a small part of the oaks planted are as yet approaching a productive age, while, the greater part, is at an age which requires a considerable outlay to keep it clear. There is also a good deal of expenditure required in other parts of the forest, for drainage, planting, &c. These woods have never been wholly planted. It has been going on every year since I came into the forest, and the expenditure has been charged against income. The whole of these, and other expenses, are to be met by such receipts as can be got from some stunted coppice-timber, a little bark, and Scotch-pine and pinaster-thinnings, which yield a very small return. My "predilection" for larch is, because I can always sell the few I have, either in Bere or Parkhurst, at a very much better price than the Scotch-fir; and, for oak, because, as the Royal forests were planted by direction of the Legislature, and were intended solely for the growth of navy-timber, this is the proper plant; and, notwithstanding any opinion of Mr. Brown's to the contrary, it is the only one which can ever arrive at maturity in Parkhurst Forest. I have nowhere "insinu-"ated," as Mr. Brown states, that larches will grow to anything like valuable size in Parkhurst Forest. I do not think that they will grow to a large size; but I consider, for the reasons I have given, a proportion of them desirable as nurses to be cut away as thinnings, leaving oak for the ultimate crop; which, although of slow growth in this soil and situation, will produce a good quality of timber, but of second-rate size. Speaking of those portions of the 300 acres, which had been recently planted with larch and oak, and which looked unhealthy, Mr. Brown adds, that "he pointed out to me considerable pieces of young larch "which had been more than one year planted, and which looked as unhealthy as these "he refers to." I have only to state, in reply to this, that there was only one other patch, which had been planted 18 months, at the time Mr. Brown saw them, where the larch (having been planted direct from the nursery near Southampton, which is a totally different soil) had not thriven so well at first as it would have done, had it come from the forest-nursery, but

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which was in fair health. Both these pieces of larch are now thoroughly healthy, and are making good progress. Mr. Brown does not state the point correctly, when he says, I have confounded larches, 12 or 14 years old, with those recently planted. If you will read my remarks, you will find that I said, his opinion was prematurely expressed, since there is larch growing well on a similar soil and exposure, not far distant; and surely there is no "perversion of the truth" in instituting such a comparison between trees in the same woods, even although they may not form a part of the crop on the 300 acres actually under discussion. Mr. Brown goes on to recommend his own system of drainage, viz., putting them in 35 feet apart all over the ground, and says that I can have had no practical experience, seeing I venture to think differently; and adds, that "it is now universally recognised, by "every one at all up with modern improvements, whether in agriculture or forestry, that "such a partial system of drainage (viz., drains at 50 or 60 feet apart, where the ground is "wet) is quite inefficient." It must be admitted, of course that, in wet situations, drainage is necessary; but the great question is, to what extent for the healthy growth of sound oak? If it will not pay to drain, as I am certain it will not, on many places, especially on places already dry, and the crop to be grown does not require it, "it would be a worse than "useless waste of money to do it."

With regard to the shape of the drains, recommended by Mr. Brown, and disapproved of by me, in my remarks on his First Report, viz., 30 inches deep, 30 inches wide at top, and 12 at bottom, I may state (without discussing whether there is any similarity between a 30-inch drain, and a railway-cutting of perhaps twice 30 feet), that I have seen some of the drains made, in accordance with Mr. Brown's directions, in Parkhill and Oakley Inclosures, in the New Forest, in, I believe, the years 1852 and 1853, which are already filled up, to the depth of some six inches, by the crumbling away, and falling in of the sides, and which, therefore, already require a considerable outlay to clean them; while drains made in other inclosures in the New Forest, in similar soil, some 30 years ago, with upright sides, and which have not been cleaned for several years, still retain their perfect shape. Beech Beds, which is within Oakley Inclosure, and may, therefore, be considered similar in soil, has drains, made upwards of 20 years ago, with upright sides, which have not been cleaned out for a number of years, and are still perfect, showing a striking contrast to those around them. These are facts which any one may see for himself who visits the New Forest; and I am content to give them as a sufficient contradiction to Mr. Brown's assertion, that "my state-"ments, in respect to drainage, are utterly at variance with all practical experience." His plan of having sloping sides may, and no doubt does, answer perfectly well in some soils, but it is not generally suitable for the Royal forests in Hants, with which alone I have at present to do. An additional reason in favour of the drains recommended by me is, that the original cost is about one-fourth less, and the cost of maintenance is very considerably less than Mr. Brown's, from requiring less frequent clearing out. The conversation which Mr. Brown states took place between himself and me, while in Parkhurst Forest, on the subject of drains, had no reference to "sloping sides," but to the depth and the width generally of the drains, which the labourers were apt to make too wide, and which I had difficulty in having made according to my wishes. Mr. Brown gives, in his Second Report, the system of drainage which he has recommended for Alice Holt Forest, which appears to be the same as he has recommended for all the other forests, viz., drains along each side of the roads, with others made to run into them from the body of the plantations. This is, no doubt, a good system; but, as it already exists generally, I do not see the necessity of recommending it as an improvement for Bere and Parkhurst Forests. They should, in fairness, have had credit for it; for persons, unacquainted with the facts, would be led to the conclusion, from Mr. Brown's Reports, that the drains are not thus laid out in these forests.

I need not again repeat what I said, in my answer to his First Report, as to the impropriety of thinning woodlands, such as Parkhurst, at regular intervals of five years, nor do I think it necessary to follow him through his irrelevant remarks on my objections to it; even if his system should be the proper rule, there is no rule without an exception, and Parkhurst is, at present, that exception. It had been left, from a too great fear of exposure, for many years, much thicker than it need have been; and, to attempt to bring it at once within a theoretical rule, such as Mr. Brown's five years' system, would, in my humble judgment, be the sure way to perpetuate its defects. Let any practical man, who knew the forest in 1848 or 1849 (Mr. Clutton, for example, who inspected it, and made a report on it in the latter year), inspect it now, and, if he condemns my management of it since that time, I shall willingly submit to be considered incompetent. The question, as regards my connection with it, is not its present state alone, but what is its present state compared with what it was in 1848? It appears, that I have misunderstood Mr. Brown's recommendation for the future establishment of Parkhurst Forest; he says: "I did not mean to infer that the fore-"man alone should superintend the forest, but that the foreman alone should be kept there "as a permanent establishment on the ground." I confess that his explanation does not make the matter any clearer, because the foreman is, and always has been, since I knew the forest, the only "permanent establishment on the ground," and I have never proposed any change, in this respect. Here, again, Mr. Brown is not content with saying the present establishment should be retained, but he leaves it to be inferred that he proposes a beneficial alteration.

With reference to my remarks on his First Report on that part of Bere Forest called the West Walk, in which I deny "that there has been a considerable degree of injudicious and "irregular

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"irregular thinning," as asserted by him, and state that it is directly contrary to the opinion repeatedly expressed by him, when in the forest. Mr. Brown says, "I can indeed "remember well that, while walking with Sir James in the forest, when I happened to see "any part of the crop in a good and regular condition, I pointed out the circumstance, "and expressed my satisfaction," &c.; but, on the other hand, when any "portion which "had been excessively or insufficiently thinned, presented itself, I pointed out these "cases to him, also," &c. &c. I beg to state, in answer to this, that Mr. Brown never pointed out any such case, but, on the contrary, every remark he made was to express the highest satisfaction; and, if he discovered so much mismanagement in every respect, I ask him how it was that, on taking leave of me, after having inspected both the forests under my care, he should have paid me what he, no doubt, considered the highest compliment he could pay, by saying, "I congratulate you on the state of the forest, and can only say "that it is a great pity that the Royal forests have not more Scotchmen in charge of them," or words to effect; why he has changed his views, I am unable to tell.

In my remarks on his First Report, I stated that the removal of some Spanish chestnuts could be the only possible ground for his sweeping charge of irregularity; but Mr. Brown now states, that these form only a very small part of the overthinnings, and goes on to say, "Sir James appears to think he has done quite right in indiscriminately cutting down "chestnuts, although the removal of them has caused considerable blanks in the plantations, "and that, in this opinion, I cannot concur with him, because the injudicious removal of trees, "of any sort, from among oaks, has a tendency to impair the value of the crop which "remains," that "they have been cleared away suddenly, and all at once," &c., &c.; "in "short, had Sir James acted the part of an experienced and skilful manager of woods, he "would not have cut away the chestnuts all at once in the way he has done, but would have "removed them gradually by a few at a time, as they were found to interfere with the oaks." Had I done all this, I should have been as "unskilful" as Mr. Brown says; but I have not removed the chestnuts "indiscriminately, or all at once," but have only cut them down, as I stated, "when they were found to be faulty, and spreading to the injury of the neighbouring "oaks." There are many still standing, to be taken away at future thinnings, when they also interfere with their neighbours. Mr. Brown appears not only to have misunderstood my meaning, in this respect, in my remarks on his First Report, but also to have overlooked the many chestnuts still growing in the forest when he visited it; but this is not to be wondered at, since he has changed his opinion of the state of the forests under my charge since he visited them. In answer to my charge of having altered his figures in his Report, Mr. Brown says, "that the number of trees on the acre, and the average diameter of them, may "very easily be determined by further measurements; I beg, however, most distinctly to "disavow having, as his charge implies, perverted the truth, by giving one measurement to "him, and recording another in my Report; I cannot be expected to be responsible for "whatever figures may be found written in his memorandum-book, or for any assertion and "charges he may be pleased to found on them." In reply to this, I have to remark, that the point at issue between Mr. Brown and myself, as to the average diameter of the trees, is not what "may be determined by further measurements," but what was the diameter of the trees actually measured by Mr. Brown, and dictated to me when he was in the forest? I assert, most positively and distinctly, that where he gives 8 ½ inches diameter in his Report, he gave me, when in the forest, 9 ¼ inches; I cannot, therefore, accept his disavowal. In order, however, to show that the figures in his Report are not correct, I beg to state that an average of three measurements just made on the same ground, gives the diameter of the trees at 9 ¾ inches nearly; which would make an increase of nearly half an inch on my statement of his figures, and of one inch and a quarter on his; which is impossible, under any circumstances, but especially in a year of considerable blight, like 1853. I stated, in my answer to his First Report, that "I do not know where the part is which Mr. Brown says is "25 years old," and "there is no part of this division of the forest, of any size, which is not at "least 32 years old; perhaps at this age, 320 trees per acre may be considered enough; at "the same time, I may add that, as Mr. Brown counted no part of this description, his "numbers must be imaginary." Mr. Brown remarks on this: "From these statements "by Sir James, it might appear, that his acquaintance with the woodlands entrusted to his "management is considerably less accurate than their efficient and probable superintendence "would require, I beg to inform him that a considerable portion of the crop on the part of "Bere Forest, marked No. 1 on the plan, and which is called the Lower Ford, was about "25 years old, when I inspected it; besides this, the crop on the part of the forest, marked "No. 3 on the plan, and called the Large Wood, was from 25 to 37 years old when I "inspected it; the ages of the crops, on these parts, I got from the foreman of the forest." In reply to this, I beg to state, that the part called the Lower Ford, was planted in the season 1820 and 21, consequently, it was 32 years old, when Mr. Brown inspected it, in November 1852, and that it was the last place, of any size, that was planted, if I except a purchase of 10 acres, made, I believe, in 1824, and planted in February and March 1825, but which Mr. Brown never saw. The question is, therefore, whether a recorded fact is of greater or less value than Mr. Brown's theories, putting aside my knowledge, or experience. There are many patches of small size where a few large trees have been cut down, which were planted since, and if these, and such replantings, as were necessary, in consequence of occasional failures, are taken into consideration, Bere Forest might, with equal truth, be said to be from one to 37 years old.

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The Lower Ford suffered very severely for a number of years from frosts, being in close proximity to Watermeadows; at first, therefore, its growth was slow, and the trees are now much smaller, in consequence, than they would otherwise have been. Mr. Brown goes on to say: "I beg, also, distinctly to repudiate Sir James's assertion that I counted no part of this description; if I had not, I certainly would not have stated the number of trees, but I presume "that the crop is still on the ground, and can be referred to, in order to prove the truth of "the case." I again repeat (as I was with Mr. Brown during the whole of his short stay in the forest) "that, as he counted no part of this description, his numbers must be imaginary;" and, in order to show that it is so, I have to state that I have counted the number of trees on the acre, and find that, instead of there being "on an average only 320 trees, with "an average diameter of four inches, at six feet from the ground, while there ought to be "nearly 400," there are, in the Lower Ford, on an average, about 335 trees, with a diameter of six inches, and that there is no part with less than 330, except, perhaps, what has been thinned since Mr. Brown saw it.

Mr. Brown objects to what I say with reference to his opinion that the fir-nurses had been very judiciously removed at an early period, because I told him, when in the forest, that "there was a very great extent of the plantations with firs among the oaks," and that "I lost no time in having them removed." He entirely mis-states what I told him, which was, that when I came to the forest, "the fir-nurses remained, to a great extent, on the "ground which had been planted with them, and that I lost no time in thinning them out." The fact is, as I stated it, that, on at least two-thirds of this division of the forest, there never were any fir-nurses, and, in the remainder, I have cut away the whole of them during the last eleven years. They could neither, therefore, have "very judiciously been removed at an "early period," from the parts where they never existed, nor from those parts from which I removed them so lately. With reference to that part of the East Walk, "consisting of "about 50 acres of poor soil," which Mr. Brown recommended should be cleared, and replanted with Scotch-pines alone, and to which I objected, as being an improper waste of public property, as the oaks are recovering, and, in my opinion, will eventually become of more value than any crop of Scotch-pine ever would. Mr. Brown says, that "Sir James "has not given a true picture of the state of the crop," and of which he proceeds to give the true character as follows: "The Scotch-pines are about 34 years old, comparatively tall, far "apart from one another, and appear to be a remnant of a former crop of trees, which has "been partly cleared away." The fact is, that the Scotch-pines are the remaining half of a crop, of which the first half, viz. every alternate line, was cut down four years ago; and, if the soil had been adapted to their growth, they ought to have been, four years ago, very much better than they were or are now. The oak is stunted, from the poverty of the soil, but it is recovering its health, and will eventually be a far better and more valuable crop than any Scotch-pines ever can be. In proof of this, I may mention, that there were many parts of the East Walk quite as sickly and stunted as that under consideration ten years ago; they have recovered, and now form a part of that crop of which Mr. Brown says, in his first Report, "these are generally in a fair state of health, and progressing well." Not feeling quite satisfied as to the extent of land stated by Mr. Brown to be so unpromising, I have had a measurement made of that which may fairly be called stunted, and find that it does not extend to 20 acres. There are, in the whole, about three acres which require replanting, and these I intended to have replanted this year with oak and larch. This last grows well to a certain stage on this soil, while Scotch-pine does not; and, if it did, it is only rubbish at best.

Mr. Brown goes on to say, "Here, again, I am charged, on the authority of Sir James's "memorandum-book, with having altered figures, and given him a diameter of eight inches, "which my Report specifies as only seven. I can only give an explicit denial to the charge, "remarking, at the same time, that it seems disproved by the fact, that Sir James does not "venture to impugn the correctness of the figures as they appear in my Report. That "correctness can be easily certified, by a reference to the trees in question." Here, again, I must decline to accept Mr. Brown's denial, however explicit, and I assert most distinctly, that a diameter of eight inches was given to me by him, and my memorandum will prove the truth of this, and the previous instances. The average girth of the five trees measured by Mr. Brown in this place, and dictated to me, was nearly 24 ¾ inches (*see* size of each tree as on the margin), which would have given a diameter of nearly 8 ¼ inches; but I objected to the size of one of the trees measured, as being too large, and therefore giving a too favourable measurement; when Mr. Brown said, "Then let us call it eight, even that is "very good," or words to that effect. I purposely abstained from again referring to the trees in question, to test the correctness of the figures in his Report, because that was not the point in dispute between us. In order, however, to show that they are not correct, I have to state that the result of three separate measurements, in this place, gives an average diameter of 8 ½ inches, being an increase of nearly half an inch in the year 1853 above the figures as they appear in my memorandum, and of 1 ½ inches as they appear in his Report, an increase clearly impossible in one year, and that a year of inferior growth. It is also worthy of note, as tending to show that Mr. Brown had little faith in his own figures, that, during his recent visit to Bere Forest (on the 21st of January last) he should not have gone to any one of the places where he measured trees before (at least, I am so informed by the foreman of the forest, having been myself absent from home on that day), to endeavour, by further measurements, to substantiate the correctness of his figures.

28
24
21
18
32
5)123
3)24 ¾ nearly.
Diameter, 8 ¼ nearly.

With

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With regard to my objection to that part of his estimate of income and expenditure for the next five years, in which he proposed to realize 1,660 *l.* from produce, exclusive of bark, while I only estimated for 890 *l.*, Mr. Brown says: "On looking over his estimates of "receipts for the three years previous to the one just quoted, I find that the average annual "sum realized, exclusive of bark, has been 975 *l.* 12 *s.* 2 *d.* nearly, from which it is to be "inferred, that instead of being disposed to increase the value of the timber-produce, as he "ought to do, he proposes to make it gradually less," &c. &c. This is a new statement to damage me, without the slightest proof to warrant it; and I have to state, in reply, that I make my estimates according to the actual requirements of those parts of the forest which I intend to operate upon during the year, without taking into consideration the amount of the previous year's income; also, that I never do estimate for receipts to the full amount I hope to obtain, but leave a margin, in case of adverse fluctuations in the value of produce, and the effects of untoward seasons, which are sometimes considerable. Mr. Brown does not find fault with the prices obtained; his larger estimate is, therefore, to be realized from an increased quantity sold. The question is consequently reduced to this, can a sufficient quantity of produce be found annually for five years to bring a return nearly double what I have estimated? I have before shown, that, without destroying the ultimate crop, for which alone I assume the Royal forests were planted, this is utterly impossible. I shall presently show that it is impossible to realize the quantity of bark he names; and, as a considerable portion of the receipts from other produce, comes from the oaks from which the bark is taken, it follows that his estimate for receipts, exclusive of bark, cannot be realized, either.

With regard to 343 tons of bark, which Mr. Brown proposed to obtain annually for five years from this forest, I showed by figures that this estimate was impossible of attainment. He does not venture to question the correctness of my figures, but endeavours to prove that, because I did not, in the year ending March 1853, obtain the quantity of bark named in my estimate for that year, no estimates of mine are, therefore, trustworthy. He was probably not made aware that, on the 22d of May 1852, I wrote a letter to you, in which there is the following passage, having reference to a smaller quantity of bark than the estimate, "When I made the estimate (viz., that, for the year ending March 1853,) the price of bark "was about 4 *l.* 10 *s.* per ton, with a downward tendency. I, therefore, estimated at "4 *l.* 7 *s.* 6 *d.*" Finding that prices still continued to decline (the price at the time this letter was written was 4 *l.* 5 *s.*), "I have in consequence restricted the thinnings in Bere Forest, "(as well as in Parkhurst) as much as possible, consistently with the welfare of the forests, "and having regard to the fact that the price of bark-stripping could not be reduced in "proportion to the fall in the price of bark, so that the forests should lose as little as pos-"sible." I said also, "that it would obviously be a most improper sacrifice to sell for "4 *l.* 5 *s.* one year what might realize 4 *l.* 15 *s.* the next, unless it was absolutely necessary "for the improvement of the forest that it should be taken away," &c. &c. However little "practical judgment" I might have displayed, this shows that much the greater part of the deficit in the quantity of bark, was caused intentionally, for the reasons given in the letter.

Mr. Brown gives a statement, showing the grounds on which his calculation of 343 tons annually for five years, was made; viz.,

	Tons.
From 250 acres of promising plantations, to be thinned annually -	128
From crop, on 10 acres of inferior land - - - - - -	5
And from crop, on 28 acres of matured timber - - - -	210
TOTAL - - -	343

which he says "may be realized on an average of years, within a deviation of 15 per "cent."

First. As to obtaining 128 tons of bark annually for five years from 250 acres of promising plantations, I must at once state that it is impossible, without sacrificing the plantations for the purpose. It would require an average thinning, equal to at least 56 per acre over the whole forest, to obtain it; and, at the present stage of the trees, this would be a far too copious thinning to be made at once, as it would, on many parts, chill the remainder, and leave the crop much too thin for its age.

With regard to the second item, viz., "Bark from crop of 10 acres of inferior land, "5 tons," which I conclude is from 10 acres of the 50 proposed to be cleared at the East Walk, I have only to say that not one-half the quantity per acre could be obtained, as yet, on this inferior land.

As to the third item in his bark-estimate, viz. "Bark, from crop on 28 acres of matured "timber, 210 tons." I have shown, in my reply to his former Report, that, supposing there were 80 trees per acre of old timber, which is much more than there really are, the quantity to be got from 2,240 trees, the crop on 28 acres, at the rate obtained last year, would be only 187 tons, instead of 210, as he gives. This leaves a deficiency of 23 tons; and I am perfectly certain, that it would be greater in reality; and this alone, Mr. Brown's "deviation "of 15 per cent." would not cover.

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Mr. Brown then says, "I proceed to make a few remarks on what Sir James says regarding "the quantity of bark I propose to draw annually from Parkhurst," but, instead of doing so, he turns to "the amount of income to be derived from bark," and says that I assert that the sum of 490 *l.*, which he proposes to draw from that sources, "is out of all proportion too "much." I never asserted anything of the kind, and never even mentioned the subject, but purposely abstained from alluding to it, because, as the price varies so considerably in different years (there was, for example, a difference of 20 *s.* per ton between the price in 1849 as compared with 1852), any remark upon it would have been useless; but Mr. Brown has left the point in dispute, for one not mooted by me at all. It is to his estimate of quantity of bark, viz., 140 tons, to which I object. He proposes to draw 80 tons from 170 acres of promising plantations, to be thinned annually, but, taking into consideration the comparatively small size of a great part of the young oaks in this forest, and with the knowledge I possess of the quantities hitherto got from trees of their size, I have no hesitation in saying that, if this quantity is obtained, it can only be by sacrificing the forest to the estimate.

As to the second item in his estimate, viz., "bark from 60 acres of inferior crop, to be "cleared annually, 60 tons." It is only necessary to say that, of the 300 acres proposed to be cleared in five years, it may be possible on 50 acres, to obtain two tons per acre, and on 100 more, one ton per acre; these two portions producing 200 tons in all, while, on the remaining 150 acres, a great part of which is cleared every seven or eight years, to make faggots, probably one cwt. per acre would be much nearer the mark. I am of opinion, therefore that, in the five years these 300 acres, as I understand Mr. Brown's classification of soil and crop, would not realize his estimate by something like 100 tons.

As to his remarks on the small amount of income derived from this forest, during the last three years, I need only say that Parkhurst Forest, being still in a backward state generally as to growth, the value of the produce is small, and that the chief part of the thinnings proper to be cut away are Scotch-pine and pinaster-poles, which are of very little value at any time, but more especially here, where the quantity is so great; in proof of this, I need only mention that many thousands of poles are every year cut up into faggots from being unsaleable as poles, and consequently do little more than pay for the labour. The expenditure, also, is necessarily large, while planting still goes on, and where the oaks require so much attention to keep them clear. It is easy for Mr. Brown to make an estimate which looks well on paper, by exaggerating the quantity of produce and the value of it, and diminishing the cost of preparing it for sale, &c., so as to show a handsome net return; but I have endeavoured to prove, by figures where they were attainable, and by the results of my own knowledge, where they were not, that it is impossible, in practice, fairly to realize such estimates. It appears from Mr. Brown's explanation of his estimate in respect to services connected with bark, that I have misunderstood him, in some degree, the chief difference between us being caused by difference of heading and classification of services, as well as in the allowance he has made for labour: "preparation of produce for sale." He states, that he has allowed one-fifth of the saleable value of produce, as the cost of preparing it for sale; this is totally inadequate for some services, and, like many other of Mr. Brown's statements and estimates, is given without a sufficient knowledge of the district. To apply a rule, correct possibly near Edinburgh, to another locality with which he has little or no acquaintance, and without due enquiry, tends still further, I submit, to show that his estimates are not such as can be realized.

I am, &c.

The Right Hon. T. F. Kennedy.

(signed) *Jas. Campbell.*

ALICE HOLT AND WOOLMER FORESTS.

MR. BROWN'S REPORTS.

NO.	DATE.	——	SUBJECT.	PAGE.
1	1852: 17 Nov. -	To N. Higinbothom	Informing him that Mr. Brown will make an Inspection of the Forests, and requesting him to give Mr. Brown every assistance and information.	209
2	1853: 26 Mar. -	To Treasury - -	Transmitting Copy of Mr. Brown's Reports on Forests	209
3	20 Oct. -	To N. Higinbothom	Transmitting Copies of Mr. Brown's Reports, for such Observations as he may wish to make.	209
4	29 Dec. -	From ditto - -	Observations on Mr. Brown's Reports as to the past, present, and future Management of the Forests.	210
5	1854: 3 Jan. -	To ditto - -	Requesting to be informed whether his Report was entirely prepared by himself, and whether he had resorted to Mr. Clutton for advice and assistance in preparing it.	226
6	4 - -	To J. Brown - -	Transmitting Copy of Mr. Higinbothom's Observations on his Reports, and Copy Letter from the Commissioner to Mr. Higinbothom relative thereto, and requesting to have further report from him on Mr. Higinbothom's Observations, as soon as convenient.	226
7	4 - -	To Treasury - -	Transmitting Copy of Mr. Higinbothom's Observations on Mr. Brown's Reports, with other Correspondence relating thereto, and stating that Copy of Mr. Brown's Reply shall be transmitted as soon as received.	226
8	9 - -	From N. Higinbothom	Stating that his Observations on Mr. Brown's Reports were of his own working out, that he did not resort to Mr. Clutton for advice, or assistance, in preparing them, and that he was fully prepared to take the entire responsibility of the Statements contained therein.	227
9	10 - -	To J. Brown - -	Transmitting Copy of Mr. Higinbothom's Letter of the 9th instant.	227
10	18 - -	To N. Higinbothom	Informing him that Mr. Brown would re-visit Alice Holt Forest, and desiring that he may receive every facility.	228
11	20 - -	From Treasury -	Desiring that Mr. Brown may be requested to make, at the earliest possible period, such Observations as he wishes to offer on Mr. Higinbothom's Letter of the 29th December, and that any further Letters in connexion with the subject may be transmitted.	228
12	23 - -	To Treasury - -	Stating that Mr. Brown had already been desired to expedite his Report, and transmitting Copy of Mr. Higinbothom's Letter of the 9th instant.	228
13	26 - -	To Treasury - -	Report on some important matters of fact connected with Mr. Higinbothom's Observations on Mr. Brown's Reports.	229
14	1 Feb. -	From Treasury -	Desiring that Mr. Higinbothom may be furnished with a Copy of the Commissioner's Letter to the Treasury, of the 26th ultimo, in order that he may have an opportunity of furnishing such explanations as he may think fit.	232
15	1 - -	To N. Higinbothom	Transmitting Copy, accordingly - - - - -	232
16	6 - -	From ditto - -	Requesting to be furnished with Copy of Mr. Brown's further Report, when received, before he replies to the Observations contained in Mr. Kennedy's Report to the Treasury, of the 26th ultimo, and that a Copy of his present Letter may be forwarded to the Treasury.	232

 (continued)

Alice Holt and Woolmer Forests.	NO.	DATE.	—	SUBJECT.	PAGE.
Mr. Brown's Reports.	17	1854: 7 Feb. -	To N. Higinbothom	Informing him that he shall be furnished with Copy of Mr. Brown's further Report, when received, but that the Commissioner is of opinion that the statements contained in his Report of the 26th ultimo are of so definite a nature, that explanations might be made without waiting for Mr. Brown's Report; also acquainting him that a Copy of his Letter, of the 6th instant, will be at once transmitted to the Treasury.	233
	18	7 - -	To Treasury - -	Transmitting Copies of Mr. Higinbothom's Letter of the 6th instant, and of the Commissioner's Answer thereto.	233
	19	- -	To N. Higinbothom	Desiring him to Report on the Commissioner's Report to the Treasury, separately and distinctly from any Observations he may have to make with reference to Mr. Brown's Report, when received by him.	233
	20	10 - -	From J. Brown -	Report with reference to Mr. Higinbothom's Observations of the 29th December last.	234
	21	14 - -	To Treasury - -	Transmitting Copy of Mr. Brown's Report, of the 10th instant, in reply to Mr. Higinbothom's Observations, of the 29th December.	238
	22	14 - -	To N. Higinbothom	Transmitting Copy ditto - - - ditto - - -	238
	23	14 - -	From ditto - -	Explanations in reference to Mr. Kennedy's Report to the Treasury of the 26th ultimo. (Five Declarations enclosed.)	239
	24	18 - -	To Treasury - -	Transmitting Copy of Mr. Higinbothom's Explanations of the 14th instant, on Commissioner's Report to the Treasury of the 26th January, with a Statement of some of the grounds on which the Commissioner formed the opinions which he still entertains.	246
	25	28 - -	From N. Higinbothom	Report, in reply to Mr. Brown's Second Report - (13 Enclosures.)	249
	26	1 Mar. -	To Treasury - -	Transmitting Mr. Higinbothom's Report - - -	269
	27	2 - -	To Chancellor of Exchequer.	Transmitting Copy Letter to Treasury, and stating that the Commissioner is of opinion that the subject cannot be allowed to rest where it is, but that it is desirable that the facts should be ascertained before an impartial and competent Tribunal, in order to place the facts of the case on a sure and certain basis; also suggesting the names of 12 Gentlemen, any three of whom would, in the opinion of the Commissioner, form an impartial and competent Tribunal. (One Enclosure.)	269
	28	3 - -	From F. Lawley -	Acknowledging, by direction of the Chancellor of the Exchequer, receipt of the above, and that same will receive his attentive consideration.	270
	29	7 - -	From Treasury -	Acquainting the Commissioner that the Chancellor of the Exchequer has communicated to the Board his Letter of the 2d instant, suggesting that an Inquiry should be instituted regarding the conflicting Statements of Mr. Brown and Mr. Higinbothom, and that their Lordships must consider the Correspondence as closed. Further, that their Lordships concur in opinion with the Commissioner, that all matters of opinion must be set aside, until a judgment has been formed on the facts in dispute; but, as their Lordships have already taken steps with a view to such a course of proceeding, they do not think it necessary to make any observation on the Commissioner's suggestions.	270
	30	23 - -	To Treasury - -	Requesting that Mr. Brown should be allowed to prove, on the ground, the facts stated by him in his Reports.	270
	31	4 April -	From Treasury -	Acknowledging receipt of Mr. Kennedy's Letter, of 23d March, and stating that he will have learnt, from the Treasury Minute of 31st March, the course which their Lordships intend to pursue in the matter.	271
	32	- -	- - - -	Treasury Minute, of 31st March, appointing Referees to go down to Alice Holt and Woolmer Forests, to investigate and report upon the several points at issue.	272

Alice Holt and Woolmer Forests.

Mr. Brown's Reports.

No. 1.

Sir, Office of Woods, &c., 17 November, 1852.

I am commanded by the Commissioner in charge of Her Majesty's Woods and Forests to call your recollection to the Commissioner having sent to you a copy of a work on forest-affairs by Mr. James Brown, and to acquaint you that the Commissioner has so high an opinion of his practical skill in such matters, that he has determined that Mr. Brown shall make an inspection of, and report upon, Alice Holt and Woolmer Forests, and the land recently purchased adjoining the former, which are under your care and superintendence. By this arrangement, the Commissioner will have the satisfaction of procuring Mr. Brown's opinions and recommendations, and you will, eventually, have the advantage of being enabled to carry into effect such recommendations and improvements as the Commissioner may think fit to sanction.

The Commissioner has reason to believe that Mr. Brown will have it in his power to reach the Forest of Alice Holt on the 19th day of November, and has to request that you will afford him every assistance and information in your power, and that you will direct such of the officers and men under you to assist and accompany Mr. Brown, in whatever manner may most promote his convenience.

I am, &c.

N. Higinbothom, Esq. (signed) *G. S. Bedford.*

No. 2.

My Lords, Office of Woods, &c., 26 March, 1853.

Being of opinion that it was necessary to have a minute understanding as to the management of the four minor forests in Surrey and Hampshire, and not being myself satisfied respecting them, I, in the autumn of the last year, directed Mr. Brown to visit these four forests, viz., Alice Holt, Woolmer, Bere and Parkhurst, and I now beg leave to enclose, for your Lordships' information, copies of his Reports on Alice Holt and Woolmer Forests, dated respectively the 12th and 16th of March. I shall no doubt have occasion, at a future period, to report to your Lordships on the subject of these forests; but, for the present, I forbear to trouble your Lordships with any observations on the contents of Mr. Brown's Reports.

So soon as I am enabled, I will transmit to your Lordships copies of his Reports on Parkhurst and Bere Forests.

I beg leave also to state to your Lordships, that Mr. Brown, being in the south of England, on an inspection of those four forests, and so near to the New Forest, I availed myself of the opportunity to direct him to pay a short visit to the New Forest, and your Lordships are already apprized of the result of that visit, so far as regards the subject of planting and nurseries in the New Forest, which arose more incidentally than by express previous intention on my part; while, on that subject, I have the satisfaction to think that Mr. Brown's visit proved to be opportune and fortunate. But I had instructed him to give me some information respecting the timber for sale in the New Forest, and respecting the condition and management of the more modern inclosures for the growth of timber. On these subjects, I have reason to think that Mr. Brown's Report is nearly ready, and so soon as it comes into my possession, I will transmit a copy for your Lordships' information.

I have, &c.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury. (signed) *T. F. Kennedy.*

No. 3.

Sir, Office of Woods, &c., 20 October, 1853.

I am directed by the Commissioner in charge of Her Majesty's Woods and Forests, to call your attention to the letter which was addressed to you on the 17th of November 1852, by desire of the Commissioner, in which he adverted to the work on forest-affairs by Mr. James Brown, which he had sent to you, and in which letter he acquainted you that it was his intention that Mr. Brown should inspect and report on Alice Holt and Woolmer Forests, and you are aware that Mr. Brown subsequently paid a visit to these forests. In the month of March, Mr. Brown made his Reports to the Commissioner, but it was then too late for the Commissioner to issue any instructions founded on these Reports with reference to the season about to commence, and for other reasons the Commissioner thought it undesirable to disturb, at that time, the existing state of things, or any of the details of management; and, in consequence, he delayed to transmit to you a copy of Mr. Brown's Reports. He is now desirous that you should be put in possession of them, and there is herewith transmitted to you a copy of these Reports, and the Commissioner will be glad to receive from you, at your convenience, such observations as you may wish to make.

It is obvious that, since the date of Mr. Brown's Report, a rise in the price of labour has taken place, which must necessarily affect calculations and estimates, and the Commissioner will probably request Mr. Brown to revise his Reports, in this particular. On the other

Alice Holt and Woolmer Forests.

Mr. Brown's Reports.

hand, there is reason to believe that a rise in the value of produce may at least compensate the rise in the price of labour, so that results may not, on the whole, be much affected; and, at all events, the rise in both respects must affect the existing arrangements of the forest, whilst they are also applicable to any changes which may have been suggested by Mr. Brown.

The Commissioner, in transmitting these Reports to you at the present time, does not wish any steps to be immediately taken founded on these Reports, but he will, at a future time, communicate to you his instructions on this subject.

I am, &c.

N. Higinbothom, Esq. (signed) *G. S. Bedford.*

[*Note.*—Mr. Brown's Reports on Alice Holt and Woolmer Forests, will be found in the Appendix to the 31st Annual Report of the Commissioners of Woods, &c.; that on Alice Holt Forest, at page 264, &c., and that on Woolmer Forest, at page 273, &c.]

No. 4.

Sir, Holt Lodge, 29 December, 1853.

I HAVE the honour to acknowledge the receipt of Mr. Bedford's letter, of the 20th October last, transmitting a copy of the Reports made by Mr. Brown in March last, after his inspection, in the preceding November, of Alice Holt and Woolmer Forests; and, in compliance with your request, to receive from me such observations as I might wish to make, I beg to forward to you such remarks as appear proper to be made thereon.

ALICE HOLT FOREST.

Mr. Brown has divided his Report into six separate heads, and I have followed the same division in making my remarks.

Under the first head, "As to the present Condition of the Plantations," Mr. Brown has entered in considerable detail into various statements as to the age, growth, and quality of the trees, the nature of the soil, and the state of the plantations, as regards drainage, &c.; and, as my remarks will necessarily touch upon the several points adverted to by Mr. Brown in his observations upon each plantation, I have recopied this portion of his Report, and have placed my observations in juxtaposition to the several statements to which they are the replies.

GREAT LODGE INCLOSURE.

Mr. Brown's Report.

A portion of this inclosure, situated on the north and west sides of the lodge, to the extent of about 150 acres, is under oak of 40 years of age. The crop has been much overthinned of late, there being only, on an average, 160 trees on the acre, while there ought to be 200; and, from measurements, I found these to have a medium diameter of seven inches at six feet from the ground.

Mr. Higinbothom's Observations.

I fear that Mr. Brown must have made a very imperfect inspection of this part of the inclosure, or he would scarcely have estimated the number of trees at 160 on the acre. I have ascertained, from actual enumeration and measurement of the trees upon several acres, fairly selected as average specimens of the growth of the plantation, that there are less than 100 trees per acre, and that their medium diameter rather exceeds ten inches, instead of seven inches.

With regard to the assertion, that there ought to be 200 "trees on the acre," I can only express my firm conviction that, if so many trees had been left standing on this soil and in this situation, they would be drawn up without heads, like tall hop-poles, and with diameters of five or six inches, instead of being fine branching trees, as at present; and, I am also confident that, if 200 trees stood upon the acre, the measurement of the timber would be considerably less than is now the case.

I am aware that these assertions are mere expressions of opinion, and that the experience of Mr. Brown, as a forester, may render his recommendation that there "ougn to be 200" trees to the acre, of more value than my assertion to the contrary. Under ordinary circumstances, I should put forward my opinion in opposition to that of Mr. Brown with considerable diffidence; but, in this instance, I am strengthened in the view which I have taken, not only by my knowledge, founded on long experience in the forest, of the capabilities of the soil in this inclosure, but also by the unsatisfactory appearance of a plantation on private property in the immediate vicinity, where, upon similar soil, the trees have been allowed to stand about the number per acre which Mr. Brown recommends.

In making this statement, I do not wish it to be inferred that my opinion is

Mr. Brown's Report.

is opposed to the possibility of there being, under some circumstances of soil, situation, and aspect, as many as 200 trees of 40 years of age, in a healthy state, upon an acre of ground, but only that the circumstances of this inclosure, and I may add of every other part of the forest, will not permit of such results.

Previous to the last thinning in this portion of the inclosure, the trees had stood very closely one to another, in consequence of which they are now much drawn up in their stems, and comparatively small in their tops; and the result of the overthinning they have lately undergone is, that they have become considerably bark-bound, and stunted in their growth.

The remainder of this inclosure, which surrounds the portion referred to above, is under oak, varying in age from 30 to 35 years, with partial spots, of small extent, under larch for hop-poles. The crop on this portion is very irregular, in respect both to quality and to the number of trees on the acre.

On some parts, where the land is very good, the trees average six inches in diameter at six feet from the ground, and of these there are 200 on the acre; while, where the land is comparatively inferior, there are from 300 to 350 trees on the acre, and they average 4½ inches in diameter at the same height.

Mr. Higinbothom's Observations.

I entirely deny this statement. The whole of this inclosure has undergone a regular and systematic thinning every alternate year since I have had charge of the forest (16 years). If, as Mr. Brown has suggested, there were 200 trees on the acre, they might reasonably be expected to be drawn up, and small in their tops, on land of this quality; but such is certainly not the case with the oaks here, or they would not be ten inches in diameter at six feet from the ground.

If the trees were bark-bound, as stated by Mr. Brown, it would not only be apparent in the growing tree, but it would also be perceptible in the tellars, when they underwent the process of bark-stripping on their being thinned out. When a tree is bark-bound, the bark is removed from it with much more difficulty than from a healthy tree; and, as the daily earnings of the bark-strippers, who are paid by the ton of bark removed from the trees, are dependent upon the quantity stripped, they are well aware of any plantation in which more than ordinary time and labour are requisite for that purpose, in consequence of the trees being bark-bound.

I have made inquiries among the labourers who have worked in this plantation, and have ascertained that they have not found any bark-bound trees among the thinnings; and I certainly cannot discover that the oaks now standing deserve that appellation, as the plantations are in a most healthy state, and are growing fast.

As regards their alleged "stunted growth," Mr. Brown may not be aware that, in the summers of 1851 and 1852, the greater portion of this inclosure suffered most severely from blight; to such an extent was this visitation felt, that thousands of trees were entirely denuded of their leaves, throughout the months of May and June; thus losing the first shoots of those seasons, and being left in a state which rendered them extremely sensitive to the autumnal frosts. The recent growth of the plantation has thus, to some extent, been retarded; but I cannot admit that there are any signs of what is usually termed stunted growth, and I regret that Mr. Brown should have been led to attribute the result of this visitation to an error of management in overthinning.

I defer my remarks, on these points, until I reply to Mr. Brown's general observations on the past management of the forest.

From actual enumeration and measurement, I find that, instead of 200 there are 127 trees on the acre, of an average diameter of eight instead of six inches, and of a height of about 26 feet. In correcting these several mis-statements, I think it right to remark, as I shall have occasion to make similar corrections in many other places, that I am actuated by no captious spirit of objection to any suggestions for the improvement of the forest; but, as Mr. Brown puts forward these figures as having been obtained on his inspection, and adopts them as the data on which he has based his conclusions as to the past management and present condition of the plantations, I feel it to be my duty to point out their inaccuracy, not from any desire to underrate Mr. Brown's qualifications and experience, but solely for the reason that, as he has made various recommendations for the future management of the forest, it is most important that you should have before you every information which it is in my power to give, as to the accuracy, or otherwise, of the data on which Mr. Brown's conclusions as to the past, and his suggestions as to the future, management of this property are based.

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Mr. Brown's Report.

Where there are so many trees per acre as the last-mentioned numbers, they ought to have a judicious thinning, as early as possible.

There are a good many damp parts in this inclosure, which should all be dried by open drains; and, with a view to this, I would recommend that drains be made along each side of all the roads, which will serve the double purpose of acting as main-drains, and of keeping the roads dry and in a thoroughly good state for the forest-operations generally. Were drains thus cut along each side of the roads, others could be made to run into them from such damp spots in the body of the plantations as require to be dried.

These drains along the sides of the roads should all be made 36 inches wide at top, 36 inches deep, and 12 inches wide at bottom; those cut to run into them from the wet land in the body of the plantations may be made 30 inches deep.

Mr. Higinbothom's Observations.

These trees have been regularly thinned, in alternate years. I will dispose of Mr. Brown's remarks on thinning, in a subsequen place.

From the tenor of Mr. Brown's observations on this and other inclosures, it might be inferred that the important operations of drainage had been entirely neglected, and that it will be necessary to institute a system of thorough drainage over a great part of the forest.

In considering this subject, it must be borne in mind that these plantations were formed chiefly between the years 1814 and 1820. And it is almost unnecessary for me to remark that, at that time, not only were the principles of drainage, as a science, comparatively unknown, but that it was scarcely thought necessary to do more in forming plantations for oak, than to cut a few main-drains to intercept and remove the surface-water.

In the last year, you were so good as to forward for my use a copy of a work written by Mr. Brown, entitled "The Forester, being a Practical Treatise on the "Planting, Rearing, and General Management of Forest Trees;" and, in the portion of that work which treats of the drainage of plantations, I find the following remarks, which fully bear out the foregoing statement: "Twenty "years ago, it was considered superfluous to drain land, where young trees "were to be put in; therefore, it is not to be wondered at, that we have, at "the present time, so many unhealthy young plantations."—*Forester*, p. 117.

If such were the views generally held by managers of plantations, at that period, I am sure you will learn with great satisfaction, that the then Commissioners of Woods, and the officers under whose directions these plantations were originally formed, were far in advance of the age, so far as regards their full appreciation of the advantage to be derived from draining wet land intended for the growth of timber; and there can be no question that the whole of the forest was systematically and effectively drained, at the time of forming the plantations, according to the principles which were then considered to be the best adapted for the purpose, and which could be but little improved upon at the present day.

In proof that this is no mere assertion, I beg leave to mention that there are, at the present moment, 239 ¾ miles of drains in the forest, nearly the whole of which have been in existence since the several plantations were made.

In the inclosure now under consideration, stated by Mr. Brown to contain "many damp parts which should be dried by open drains," there are no less than 15,271 rods, or 47 ¾ miles, of drains now in existence, and in these "damp parts," I find that there are long main-drains, varying from four feet to two feet six inches in depth, running four rods, or 66 feet apart; from which again there are branch drains, varying from 20 inches to two feet in depth, intersecting the spaces lying between the mains; the whole of these drains having been laid down to suit the irregularities of the ground, according to the principles upon which the drainage of the forest was planned.

With regard to Mr. Brown's suggestions, that drains should be cut on either side of the roads in this plantation, I beg to state that drains of the dimensions stated above were already in existence at the time of Mr. Brown's visit, on either side of all the old roads and rides in this inclosure; the only rides to which there are no drains being those inferior rides which have been cut for the removal of produce within the last four or five years, when the younger portions of the plantation required thinning. And I beg further to state, that what Mr. Brown recommends should be done, viz., that drains should be cut from the damp places to run into these roadside drains, has actually been done, wherever it was necessary and practicable, many years ago.

Notwithstanding the existence of this extensive system of drainage, it would appear from Mr. Brown's remarks, that he considers it insufficient; but, on this point, I must beg leave to differ from him, as I am of opinion, taking into consideration that the mains are 66 feet apart, that the spaces between them are closely intersected with cross-drains, at distances of from 25 to 30 feet only, and from my knowledge of the healthy state of the crop, and the general condition of the ground, that it is already sufficiently drained. I submit this opinion with the less hesitation because, on reference to Mr. Brown's work, I have observed the following passage, from which it would appear that the drains

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drains now existing in this plantation are as closely placed as he recommends, under any circumstances, should be the case.

"In all cases, where I drain for the planting of forest-trees, of whatever "nature the soil may be, I never put in drains closer than 25 feet, nor wider "than 50, if the soil requires draining at all."—*Forester*, p. 119.

There is such a palpable contradiction between the rule laid down in the above extract, and the recommendation made by Mr. Brown as to the drainage of this inclosure, that I am totally at a loss to reconcile them; the only way in which I can account for the extraordinary recommendation that the "damp "places" (already intersected with drains from 25 to 30 feet apart) should be "dried by open drains," is upon the assumption that, from the hurry of his inspection, Mr. Brown failed to observe the extent to which the ground was already intersected with drains.

The land of this inclosure varies much in quality; to a considerable extent, however, it is a good heavy loam, well adapted to the growth of the oak. On some portions, it is a sandy gravel; of this description, there are about 30 acres lying to the south-west of the deputy-surveyor's house, at present under oak of extremely stunted growth, which will never become valuable as a crop on the land. This portion I have to recommend should be cleared of its present crop, dried by open drains, put on at 40 feet apart, and replanted with larch alone, which will ultimately pay well as hop-poles.

The land on which this oak is planted is on a hill-side, open to the south-west winds, and, from its exposed situation, the plants have not thrived, like the rest of the inclosure. I cannot admit, however, that it would be advisable to cut down and replant 30 acres, as the trees have generally shown great improvement in the last three or four years; but, in a plantation of nearly 400 acres, planted solely with a view to the growth of navy-timber, it is not surprising that the crop on some eight or ten acres, should not turn out well.

The Straights Inclosure.

The crop in this inclosure is oak, which has been planted at different times, in portions of various extents, and consists of trees from 25 to 40 years old. The trees vary in health, according as the ground is naturally dry, or otherwise.

Planting was carried on in this inclosure until 1835. About 100 acres, are from 18 to 22 years old.

The soil is, generally, a light loam, well adapted to the growth of the oak; where it is naturally dry, the trees have succeeded well, and, on the other hand, where it is damp, they have, of course, not prospered.

In the neighbourhood of the woodman's lodge, there are about 130 acres of the land comparatively dry; here there are 180 trees on the acre, 40 years of age, with an average diameter of eight inches at six feet from the ground, and of a promising healthy character. The remainder of the inclosure, extending to 100 acres, is in a very damp condition; the crop is, in consequence, very unhealthy and weak of its age (from 25 to 30 years), and will never become valuable as a crop on the land.

With regard to the crop in this inclosure, I am of opinion that that portion on the 130 acres in the neighbourhood of the woodman's lodge, referred to as being in a comparatively dry state, would be still further improved by drains being made along each side of all the roads, with others to branch from them into the body of the plantations, in the same way as has already been recommended in reference to the draining of Great Lodge Inclosure, and that the whole of the crop on the remaining 100 acres should be cleared off, the ground dried by open drains, put on at 35 feet apart, replanted with oak at nine feet distance, and made up with larch, as nurses, to four feet and a half over all. This appears to me to be the only profitable way of dealing with the stunted bark-bound trees growing in the damp soil in question; for they are now

About 50 acres of loam; the rest (180 acres) is a stiff clay.

The land here is naturally wet; its dryness is attributable to the efficiency of the drainage. The best trees are not in the soil which is "naturally dry," but in the stiff clay.

There are not 100 trees upon the acre here, as I have ascertained from actual enumeration. Their average diameter is over 10, instead of eight inches, at six feet from the ground.

I entirely dissent from the opinion, that this crop will never become valuable, and I do so with the more confidence, because the crop is only from 18 to 22 years of age, instead of from 25 to 30 years, as stated by Mr. Brown, and because it is impossible, from the superficial nature of his inspection, that he could have been able to judge of the effect which natural causes have had in retarding the growth of this inclosure. Shortly after the plantation was formed, the young trees, in consequence of the lowness of the situation, suffered severely from spring frosts; and, as all plantations will do, under similar circumstances, struggled very slowly for the first seven or eight years, until, by their own growth, sufficient shelter was obtained to raise the temperature about them. Since which time, they have made rapid progress, and I think there will be as good timber here as any in the forest.

The remarks I have made, as to the drainage of Great Lodge, apply equally to this inclosure, in which there are 12,534 rods,

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now so much injured in health, that no system, either of drainage or thinning, would have any materially beneficial effects upon their constitution.

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rods, or 39 miles, of drains, which gives the average of a drain in every 54 feet. The whole of the wet portions of this ground are already dried, as far as it can be done, by drains 30 feet apart, on the average, the depth being about the same as in the Great Lodge Inclosure.

See the preceding remarks.

I do not consider that there is an acre in this inclosure that requires to be cleared, and re-planted.

Goose Green Inclosure.

That portion of this inclosure which, on the plan of the forest, is marked as the "free-"hold of the Crown," and which extends to 42 A. 0 R. 1 P., is under a very promising crop of oak, about 40 years of age. There are 180 trees on the acre, and these have an average diameter of eight inches at six feet from the ground; the remainder of the inclosure, embracing 185 A. 2 R. 7 P., is under oak of 35 years of age, which is in a fair state of health, but very irregular as to the number of trees on the acre. On some parts, I counted 160 on the acre, while, on others, I found 250, with an average diameter of five inches.

Mr. Brown's estimate is again strangely inaccurate. There are not 100 trees on the acre, and their average diameter is 10, instead of eight inches, at six feet from the ground.

The land of this inclosure is, generally speaking, a good, dry, light loam, well adapted to grow oak to valuable dimensions; and this circumstance accounts for the better health of the crop, as compared with that on the last-named inclosure. There are, however, several damp spots, which should be dried in the same way as I have already advised under the head "Great Lodge Inclosure."

The soil is a strong clay, with gravel on the hills.

I am more inclined to attribute its state of health to its not being so much exposed to spring-frosts.

The same observations, as to drainage, apply to this inclosure, in which there are 7,372 rods, or 23 miles of drains.

I have already stated, in reference to the crop here, that it is very irregular as to the number of trees on the acre. And I may further remark, on this point, that, where there are only 160 trees on the acre, a severe and injudicious thinning has of late been made, and the trees are now too much exposed; while, on the other hand, where there are 250, the crop is in too close a state, and, consequently, should have a judicious thinning during the in-coming season.

I will postpone my remarks on this statement to a subsequent part of this Report. Similar charges of mismanagement having been made in other places, it will be most convenient to deal with them all at once; but, I may observe, that the whole of this plantation has been regularly and systematically thinned, in alternate years.

Abbot's Wood Inclosure.

The crop of trees (oak) in this inclosure, in consequence of the soil being good, and comparatively dry, is, generally, in a fair state of health, and promises to become first-rate timber, under future good management. I may, however, remark that, in this inclosure, as well as the one last named, the trees are very irregularly distributed over the ground. On a considerable extent, there are about 160 on the acre, and there they have lately been much over-thinned; while, on other portions, there are 260 trees on the acre, and these have been neglected, and not thinned sufficiently. The average diameter of the trees here, I found to be about six inches, at six feet from the ground.

I find about 100 on the acre, with a diameter of nine inches, in lieu of six.

The charge of improper thinning will be answered subsequently; but, I venture to submit that, if the trees had been improperly thinned, it would scarcely be probable that the crop, as stated by Mr. Brown, would be generally in a fair state of health, and promising to become "first-rate timber."

I stated above, that the soil of the inclosure, now under consideration, is comparatively dry;

The

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dry; still, I ought to observe, that there are many wet parts in it, of comparatively small extent; and, in order to dry those parts, and to improve the general health of the whole crop, I have to recommend that it should be drained in the way already advised under the head, Great Lodge Inclosure.	The same observations, as to drainage, apply to this inclosure, where there are 7,450 rods, or 23 miles of drains.
On the south-east side of this inclosure, there is a portion of very poor gravelly soil, extending to about 20 acres, on which the crop (oak), in consequence of the land not being adapted to its healthy growth, is extremely inferior. This portion I would advise to have cleared away, and the land replanted with larch alone, in the way already recommended for the improvement of a similar portion in Great Lodge Inclosure.	There is a small portion where the oak is decidedly inferior; and, in an inclosure of this size, this could scarcely be avoided; but, the quantity is much over-stated, at 20 acres.

Willow Green Inclosure.

The age and condition of the crop in this inclosure, as well as the quality and state of the land under it, are, in every respect, of a similar character to those in the one last described. In order, therefore, to save repetition, I beg to refer to the remarks made under the head "Abbots' Wood Inclosure."	This plantation differs, as to aspect, soil, and situation, as well as in the growth of the timber, from the inclosure to which Mr. Brown says it is "in every respect" similar.
In the central parts of this inclosure, there is also a piece of poor gravelly land, on which the oak-crop, which has very injudiciously been planted upon it, is in an unhealthy state, and never will be valuable. The portion referred to, extends to about 25 acres; and, in order that it may be put under a crop suitable to it, and from which profitable results may be reasonably expected, I have to advise that the present crop should be cleared off, and the whole drained and replanted with larch alone, in the same way as recommended for the improvement of the similar portion of and referred to, in Great Lodge Inclosure.	There are already 8,340 rods, or 26 miles, of drains in this inclosure.

Glenbervie Inclosure.

The land, in this portion of the forest, varies from a strong clay to a sandy peat, and the crop (oak) from 34 to 40 years, to the extent of 300 acres, is in a tolerable state of health, and will become timber of good value. The trees on these 300 acres vary very much, both in respect to the number per acre, and the diameter of their stems. Where the land is a good loam and dry, they average 180 per acre, with an average diameter of about seven inches; while, on the portions of land of an inferior character, and naturally damp, they average only five inches diameter, with nearly 300 on the acre.	I find about 100 trees to the acre, with a diameter of eight inches.
For the improvement of the crop on these 300 acres, I would recommend that, where there are above 200 trees on the acre, a judicious thinning should be made, and that the same system of drainage should be employed as has already been recommended and particularized in respect to the improvement of the oak-crop in Great Lodge Inclosure.	The trees have been regularly and systematically thinned, in alternate years. There are 17,319 rods of drains, in this inclosure. The observations made as to Great Lodge, apply to this inclosure.
These remarks are applicable to 300 acres of this inclosure only; as to the remaining 67 acres, I have to remark, that there is a portion to that extent situated upon the north side of the inclosure, which consists of a light	If it should be decided to clear, and re-plant any part of this land, I venture to suggest that

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light sandy peat, quite incapable of growing the oak-crop which has been injudiciously planted upon it; the natural consequence of this is, that the crop is unhealthy, to the last degree, and will, instead of becoming more valuable, yearly deteriorate. In order, therefore, to make the most of the crop at present existing there, and to have the land, as soon as possible, put under a crop suitable to it, I would advise that the ground should at once be cleared, drained, and re-planted with Scots-pine alone (it not being adapted to grow larch in a sound state), which will ultimately pay a fair rent, if disposed of as hop-poles.

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that it will be more profitable to grow larch than Scots-pine.

I am ready to admit that the soil will not grow the former in a sound state for timber; but, it must be borne in mind, that the crop would all be cleared in 15 years, if sold, as proposed, for hop-poles. And further, that Scots pine-poles are very inferior, and fetch 20 per cent. less in the market than larch poles, while the difference in the original cost of the plants is trifling.

Holt Pound Inclosure.

The land and crop, in this portion of the forest, are, in every respect, similar to those in Abbot's Wood Inclosure, and the remarks made under that head are generally a-pilp cable to the one now under notice.

The soil is not so good as Abbot's Wood.

In the central part of this inclosure, there is a portion of poor gravelly land extending to nearly 20 acres, upon which the crop of oak has failed to grow profitably. As to this, also, I have to recommend that the oak should be cleared off, and the land drained, and replanted with larch alone.

The oak grows but slowly here, but will become good hard timber; although, from the nature of the soil, the timber will not be equally large in every part. If the present crop were to be cleared and sold, it would fetch but little more than the price of firewood; and I cannot agree with Mr. Brown as to the propriety of the step which he recommends.

Mr. Brown concludes his detailed remarks, upon these several inclosures, by annexing a table, showing the number of acres which he proposes to clear and re-plant with oak, larch, and Scots-pine, amounting altogether to 262 A. 3 R. 28 P.

From my remarks, it will be gathered that I cannot agree with him that this extent of land should be cleared.

A crop of oak that may be worth, at the present moment, and would fetch in the market 30 *l.* an acre, to be allowed to grow to maturity, would not be worth one-half that amount, if felled for sale in its immature state. By the clearance of this land, in the manner proposed, nearly 200 acres of a growing crop, that will eventually become good valuable timber, would be comparatively sacrificed, as the price which would be realized by its sale, in its present unripe state, would do little more, as I shall show in my remarks upon Mr. Brown's estimates, than pay the cost of clearing the stubs, trenching the land, and re-planting. It may be possible, however, that some 60, or at most 70 acres, may be cleared and replanted to advantage in this locality with larch for hop-poles.

With regard to Mr. Brown's statements respecting this portion of the crop having been "injudiciously planted" on land not adapted to its healthy growth, it must be borne in mind that these plantations were not formed solely with a view to immediate profit. On the contrary, it will be observed, on a perusal of the earlier Reports of the Commissioners of Woods, that the planting of the whole of the inclosures taken from Holt Forest with oak, was executed in conformity with a most extensive system which the then Commissioners of Woods actively carried into effect, having for its object the formation of a reserve of timber for the supply of the Royal Navy. And it is not perhaps to be wondered at that, in the application of the system to this forest, three or four per cent. of the land planted should not be precisely adapted to the crop; and I believe no plantations, of the same extent, can be found, in which similar failures are not to be observed.

I now come to the following portion of Mr. Brown's Report, viz.:

Secondly. "As to the system of management under which the plantations in the Holt "Forest have hitherto been."

The assertions made in this portion of the Report are so entirely without foundation, the opinions put forward as to the condition of the crop of timber are so contradictory, and the charges of mismanagement are so easily refuted, that my reply might have been contained in a few lines; but, as it will probably be more satisfactory to you, if the exceptions which I have taken to Mr. Brown's observations, are stated in full detail, I have entered into the subject at greater length than would otherwise have been necessary.

Mr.

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Mr. Brown commences by stating, that "it is very evident, from the generally drawn-up "character of the oak-trees which now constitute the chief body of the crop, that they have, "till within a period of eight or ten years past, existed in an extremely confined state among "their nurses; that no well-arranged system of management has been followed out with "regard to them, and that their full development has been much hindered, in consequence." He adds, that these nurses have been removed too suddenly, and the result is, "that the "oaks have generally more or less suffered in health from the effects of too sudden exposure, "after the pines were removed." And, in a subsequent paragraph, he states, that the oaks, in the poorer portions of the land, have been "smothered by the nurses."

When Mr. Brown's Report was first placed in my hands, I read the foregoing explanation of the cause of what he terms the "drawn-up character" of the "chief body of the crop" with unmingled astonishment.

In the letter which Mr. Bedford addressed to me on the 17th November 1852, he acquainted me that you had directed Mr. Brown to make an inspection and report upon the forests under my charge, in consequence of your having "so high an opinion of his "practical skill in such matters;" and, such being your opinion as to Mr. Brown's capacity and experience, I am sure that you will be equally surprised with myself at the extraordinary misapprehension into which he has fallen, when I assure you that no nurses were ever planted upon about 1,500 acres out of the whole extent of Alice Holt Forest.

Upon the portion where nurses did actually exist, I think it right to state that, so far from the oaks having been confined among them until within the last eight or ten years, as stated by Mr. Brown, there has not been a single nurse left in the forest for 13 years; and further, that these nurses never were allowed to remain to the injury of the oaks.

After having thus attributed what he calls the "drawn-up character" of the "chief body "of the crop" to a cause which never existed, Mr. Brown proceeds to state, in the next paragraph but one, that "in the inclosures of the Forest of Alice Holt, a great part of the "crop is comparatively good of its age, and will, under future good management, become "valuable timber;" and, after rendering this most gratifying testimony to the present condition and future prospects of the crop (a great part of which he had just before stigmatized as being "drawn-up"), he goes on to specify three causes which, as he states, have induced the "comparative inferiority of the crop."

Comment on these contradictions will, probably, be considered superfluous.

The causes, so specified by Mr. Brown, are as follows:

First. "By the want of a system of thorough drainage in the soil, before the plantations "were made."

Throughout the whole of his Report, it will have been observed, that Mr. Brown dwells, at every opportunity, upon the dampness of the soil, in some part or other of each of the inclosures, and the necessity for the construction of drains; and, in some places, he even specifies the distances such drains ought to be apart. He now sums up these several statements, by extending the charge of want of drainage to the entire forest.

I have already pointed out some extraordinary errors into which Mr. Brown has fallen in advising the construction of drains in places where they already exist; and, in my remarks upon Great Lodge Inclosure, I gave a statement of the total mileage of the drains in the forest.

With the knowledge of the existence of this most extensive scheme of drainage, planned at the time the plantations were formed, upon the principles then believed to be best adapted for the growth of timber, I examined Mr. Brown's Report with the deepest attention, in order to ascertain what opinion he would express as to the benefits which had been derived from its operation; but, although Mr. Brown has given expression to reiterated strictures as to the absence of drainage, the only remark I can find in the Report from which it could be inferred that there was a single rod of drain in the forest, is contained in the following terms: "I ought to remark here, that there has been a partial drainage made on many parts of these "plantations, but not sufficiently to dry the land, and make it available for the maintenance "of the crop in full health and vigour."

As the question whether the existing drainage has been sufficient to keep the crop in health and vigour, is one on which Mr. Brown and I might possibly take different views, I will not venture to put forward my opinion on the matter, in opposition to his; the more especially as, from the manner in which he has contradicted himself in speaking of the state of the crop, it is utterly impossible to tell what his opinion on that point really is; I shall content myself, therefore, with showing of what this "partial drainage" consists. And I beg leave to append the following statement of the number of rods (5½ yards) of drains in each inclosure, and the average number of rods in each acre, throughout every inclosure, and the average number of rods in the "damp places" to which Mr. Brown has so frequently adverted as requiring to be dried by open drains.

The depth of these drains varies according to the requirements of the soil, and the natural inclination of the ground, from 4 feet to 24 and 20 inches. They are kept in thorough working-order.

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NAME OF INCLOSURE.	Number of Acres.	Total Number of Rods.	Average Number of Rods, per Acre.	Average Number of Rods per Acre, in the Damp Places.
	A. R. P.			
Great Lodge - - - -	389 0 7	15,271	39 ¼	95
The Straights - - - -	230 3 28	12,534	54 ¼	88
Goose Green - - - -	227 2 8	7,372	32 ¾	80
Abbot's Wood - - -	229 1 26	7,450	32 ¼	86
Willow Green - - - -	200 0 0	8,340	41 ¾	80
Glenbervie - - - -	367 0 24	17,319	47	92
Holt Pound - - - -	252 0 19	8,436	33 ½	80
TOTAL - - -	1,896 0 32	or 239 ¾ miles.		

Upon making a calculation, founded upon the data given in the last column, it will be found that the drains in the damp places are situated at average distances, varying in the several inclosures, according to the requirements of the soil, from 25 to 30 feet in Great Lodge, to 30 to 35 feet in Goose Green, Willow Green, and Holt Pound; and, on referring to the extract from Mr. Brown's work, quoted in my remarks about Great Lodge Inclosure, it will be observed that, in his own practice, he never puts in drains, when planting for forest trees, "closer than 25 feet," nor wider than 50 feet, if the soil requires draining at all, his reasons being that "if the soil for a plantation of trees be drained more frequently "than at 25 feet, the trees are very apt to be blown up by the roots."

It would appear, therefore, that these "damp places," upon which Mr. Brown has so frequently animadverted, as requiring "to be dried by open drains," are already furnished with drains as closely placed as Mr. Brown would himself insert them in the "wettest soil," and of the same depth, I may observe, as he himself advocates in his book. If, as alleged by him, these drains have not been sufficient to dry the land, it would obviously be undesirable, by his own showing, to place them any closer, lest the trees should be blown up by the roots.

Further comment is, I trust, unnecessary; but, as Mr. Brown has stated that the existing drainage is not sufficient to maintain the crop in full health and vigour, I think it right to state that I shall have much pleasure in proving, in the next portion of the Report, that, by Mr. Brown's own showing, a very important part of the crop is in that "full health and "vigour" which he here states cannot be maintained.

The second cause to which Mr. Brown attributes the "comparative inferiority of the crop, "is the neglect of thinning out the nurses in a regular and systematic manner, as the oak-"crop advanced."

I have already shown that no nurses were ever planted on nearly four-fifths of the forest; and it may, I think, admit of a doubt (with all submission to Mr. Brown's judgment) whether the inferiority of the crop can be fairly attributed to the neglect to thin out that which never existed.

The third cause is, "the neglect of a regular and periodical system of thinning the oaks, "since the nurses were removed."

In his remarks upon most of the inclosures, Mr. Brown has preferred a similar charge, which he now extends to the whole forest; and I have postponed any replies until now, as I thought it would be more satisfactory to you if this important matter was dealt with at once in a comprehensive manner.

Mr. Brown makes his charge of neglect in the following terms: "With regard to the "last-mentioned cause of the inferiority of these plantations, I may further remark here, that "there cannot be a more convincing proof that sound practical knowledge has not hitherto "been applied to their management, than the circumstance that, on the same inclosure, "where the trees are generally of the same age, they are so very irregularly disposed on the "ground, that on some parts as many as 250 are found on the acre, and on other parts not "more than 160."

Having already shown the inaccuracy of Mr. Brown's estimates of the numbers of the trees per acre in the several inclosures, I might very reasonably urge the entire fallacy of his data as a sufficient reason for not replying to this charge; but, as Mr. Brown's allegations imply negligence and ignorance, on my part, I am quite prepared to meet him on the broad ground of the propriety, or otherwise, of the mode in which the thinning has been carried on.

Mr. Brown continues (and I must beg your particular attention to this passage, as it contains the gist of the charge against me),

"From this it is to be inferred, that where the former number of trees are found, they "have been neglected, and not thinned sufficiently to promote healthy growth; and, where "the latter number is found, they have been injudiciously overthinned, and consequently "their healthy growth has in a great measure been checked by sudden exposure."

The inference here attempted to be drawn, that, because in one part of a plantation there are as many as 250 trees to the acre, they have not been sufficiently thinned, and because in another part there are only 160 trees to the acre, they have been overthinned, is so extra-

ordinary,

ordinary, that I am surprised that any practical man should have ventured to make such a statement.

If the soil in every part of a plantation, were precisely of the same nature, if the whole of it were alike sheltered from, or exposed to the wind, or, in short, if every tree, on every part of a plantation, were circumstanced alike, I am willing to admit that, if there were 250 trees per acre on one part, and only 160 on another, the whole being of the same age, the inference attempted to be drawn by Mr. Brown would hold good.

I am not aware of the extent of the plantations of oak which Mr. Brown has usually under his charge; but, I freely admit that, in parcels of 10, 20, or 30 acres, it is possible that, by a combination of fortuitous circumstances, the trees might be regularly disposed over the whole of such parcels; but, it must be remembered, that the inclosures in Holt Forest vary from 200 to 389 acres in extent, and that there are different qualities of soil in different parts of each inclosure.

That such is the case is apparent, from the remarks which Mr. Brown has made upon each of the inclosures. In the Great Lodge, he states, "that part of the soil is very good;" another part "comparatively inferior;" and that on the former there are "200 trees to the acre," on the latter, "from 300 to 350." In Abbot's Wood, he speaks of part of the soil being good, but, of another part, that it consists of poor gravel. The same is said of Willow Green: and, in Glenbervie, the soil is stated to vary from a strong clay to a sandy peat. In addition to these variations of soil, I may add that, as some portions of these inclosures are low, they are subject to early spring-frost, by which the young trees have been nipped, while other portions, being situated on the edge of a considerable eminence open to the south-west wind, the young plants have naturally suffered from its influence.

With these varieties of soil, temperature, and situation, it cannot be expected that the trees upon every acre of a plantation should take hold of the ground, and advance precisely at the same rate of progress, although they may be of the same age; and I have never, until now, heard of a practical forester who had the boldness to assert that such ought to be the case. In Mr. Brown's book, indeed, I observe two passages so entirely corroborative of my opinion on this point, that I have much pleasure in quoting them for your perusal:

"Every intelligent forester who has had the management of plantations upon an estate of "considerable extent and varied surface, will have had occasion to remark the great "difference that occurs in the growth of plantations, even within the bounds of one estate, "according as the plantation may be situated upon a sudden rising height, upon flat level "ground in a hollow or glen, upon sandy or light soil, or upon heavy clay soil; and I may "say also, according to shelter received from surrounding plantations." (*The Forester*, page 332.)

And farther, "Even a person unacquainted with forest-matters will at once admit that, in "some sheltered situations, trees will be fit for a given purpose at 20 years from the time of "planting, while others, of the same age, planted upon an exposed part, will not be nearly "so large." (*Ibid.*)

It must be conceded then, even by Mr. Brown that, under different circumstances, even within the limits of one inclosure, the young plants of the same age will not succeed equally well, and that all will not swell and branch out with the same rapidity; consequently, it must follow, that the number which require to be periodically thinned out, will be found to vary. Where both soil and aspect are favourable, the trees will grow strong, and increase in size, and in these spots free thinning will be necessary; but where, on the contrary, from local causes, the growth has not been so rapid, too free thinning would bring on the very evil which Mr. Brown deprecates in his strictures upon overthinning, by checking the health of the plants from too sudden an exposure. Further explanation on this point is perhaps unnecessary, as I observe a passage in Mr. Brown's book, in which he has pointed out, in such concise and simple terms, the causes which lead to the irregularity of the number of trees in different parts of one plantation, that I must beg your particular attention to the passage.

"In the first thinning of any plantation of considerable extent, it will often be found "prudent and necessary to pass over some parts altogether, without taking out almost a "single tree; and this will happen upon a part of the ground which is of a poor thin nature, "while again, wherever the ground is of a stronger nature, with a little shelter from the "higher grounds, it may be found necessary to take out nearly one-third of the trees, in "order to give proper air and room." (*Forester*, page 321.)

On a perusal of these extracts, you will observe that, so far from the irregular disposition on the ground of trees of the same age being a "convincing proof that sound practical "knowledge has not been applied to their management," Mr. Brown has here most satisfactorily shown that it is often "prudent and necessary" that the trees on one part of a plantation should be left nearly untouched, while, in another part, nearly one-third should be removed.

Under these circumstances, I think it must be conceded that the inference attempted to be drawn by Mr. Brown, that the trees in one place have been overthinned, because there are 160 to the acre; and that, in another place, they have been neglected, because there are 250 to the acre, falls entirely to the ground; more particularly when I state that, where the trees are largest in size and fewest in number to the acre, the soil is the best in the forest, and where they are least in size and in the greatest number to the acre, the soil is the weakest, and least adapted for the growth of oak.

In order, however, to set at rest the question as to the propriety, or otherwise, of the thinning which the whole of the plantations have undergone, I take the opportunity of submitting

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mitting to you the principle on which this most important operation has always been conducted by me, under the direction of the late Commissioners.

The principle so acted upon, is that adopted by every person skilled in the management of woodlands, and Mr. Brown, in his book, explains it in the following terms:

"As the general rule, my own method of procedure generally is, to leave the trees as "nearly as possible free from one another, after the thinning has been performed; that is, "when a plantation of young trees has been newly thinned, the extreme points of one tree "should do no more than touch those of its nearest neighbour." (*The Forester*, page 321.)

It has been in conformity with this rule that I have thinned the whole of the plantations under my charge; and the present state of the crop, whether it is "comparatively good" or "comparatively inferior," or whether, among trees of the same age, there are 100, 200, or 300 to the acre, is caused by an adherence to the rule which Mr. Brown himself advocates and adopts.

Before closing my observations on this portion of the Report, I beg to call your attention to the following observations made by Mr. Brown, on the state of the older portion of the timber now standing in the forest.

"I have stated that the best portion of the trees, at 40 years of age, average only eight "inches diameter at six feet from the ground. I may remark, on this point that, had these "trees been systematically thinned of their nurses in due time, they might have now been, "on such land, at least 10 inches diameter."

In a former place, I stated that I would show that an important portion of the crop was in a vigorous and healthy state, even according to Mr. Brown's own statement; and, if you will have the goodness to refer to the remarks which I have made, in detail, upon the several inclosures, and to the dimensions there given from actual measurement of the trees of 40 years of age, you will perceive, and I am sure with great satisfaction, that, notwithstanding the alleged insufficiency of the drainage, the trees in question average 10 inches in diameter at six feet from the ground, being the very same dimensions which Mr. Brown states that they "might have been" if they had been "systematically thinned of their nurses in due "time."

This favourable result is not, perhaps, to be wondered at, when it is considered that, as there were no nurses among these trees, the retarding cause alluded to by Mr. Brown, had no existence; and, consequently, it is not surprising that his prognostications should prove to be correct, although in a way that he did not anticipate.

Since the preceding observations were written, I have seen a printed copy of the 31st Report to Parliament of the Commissioners of Woods, in which the Reports made by Mr. Brown on several of the Royal Forests are printed *in extenso*. On a perusal of the Report made by him of the result of his inspection in November 1852 of the New Forest, I have found an apparent explanation of the errors into which he has fallen in asserting that the young oaks, in Alice Holt, had been injured by the nurses (which never existed), and that there had only been a "partial drainage" of some parts of the land there.

This explanation is to be found in the fact that, with the exception of a few verbal alterations, Mr. Brown's Report "as to the system of management under which the plantations "in Alice Holt Forest have hitherto been," is, *mutatis mutandis*, identical with the first part of his Report, "as to the system of management which should be adopted for the future "improvement of the plantations in the New Forest;" and I presume that, being pressed for time, he has made that portion of his Report available for both Forests, although, as the remarks made thereon have been shown to have no reference whatever to Holt Forest, he has been rather inaccurate in their application.

In order to show that such is the case, I have taken the liberty, at the risk of extending my communication to an undue length, to subjoin a few extracts from his remarks upon the two forests.

Mr. Brown's Remarks "as to the System "of Management which should be adopted "for the future Improvement of the Plan- "tations in the New Forest."	Mr. Brown's Remarks "as to the System of "Management under which the Planta- "tions in the Holt Forest have hitherto "been."
In looking over the plantations in this forest which have been made since 1808, it is at once evident, from the generally drawn-up character of the oak-trees, which now constitute the great body of the crop, that, till within the last four or five years, they had been left in an extremely confined state among their nurses, and that their healthy and full development has been greatly arrested, in consequence. The nurses, which had been planted in these plantations, were Scots-pines, a tree in all cases objectionable as a protection for the rearing of oak: these have now, however, for the greater part, been removed; but this has generally been done too suddenly, and not in such a gradual way as was necessary, in order to secure the health of the oaks, after these had stood so long in a confined	In looking over the several inclosures in this forest, it is very evident, from the generally drawn-up character of the oak-trees which now constitute the chief body of the crop, that they have, till within a period of eight or ten years past, existed in an extremely confined state among their nurses; that no well-arranged system of management has been followed out with regard to them, and that their full development has been much hindered, in consequence. The nurses, which have been planted in these plantations, were Scots-pines, which are, in all cases, objectionable for rearing of oak: these have now, however, for the greater part, been removed; but this has been done too suddenly, and not in such a gradual manner as was necessary, in order to secure the health of the oaks,

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fined state; and the result now is, that these have generally suffered very much in health, from the effects of too sudden exposure after the pine-nurses were removed. The external symptoms of this impaired state of health are numerous spray-shoots, issuing from their stems, and the weakly growth of the annual shoots of the branches generally; both of these indicate a want of vigour in the constitution of the trees.

These remarks as to the condition of the crop in the plantations of the New Forest are, however, only applicable in a general sense, or rather this injury has, only to a certain extent, ensued, for, in most of these inclosures, there is a portion of the crop comparatively good at the respective ages of the trees, which will, under future good management, become first-rate timber. This is the case where the soil is of a good and comparatively dry character, on which the oaks have, at an early stage of their growth, got the ascendancy over their pine-nurses, and, consequently, have not been so much injured by them as others have been on the wetter and poorer portions of the land, where the oaks have grown comparatively slowly, and have been very much injured by the pines, which on such land grew more rapidly.

In addition to the neglect of timely-thinning, drainage has also been neglected in the past management of these plantations. This, indeed, forms the chief cause of the comparative inferiority of the crop on the greater portion of the land which has been closed and planted since 1808; for, had the important work of drainage been attended to, at least wherever wetness appeared, the trees in these inclosures would have been generally more healthy and valuable than they now are, even under the unfavourable circumstances of close confinement in which they have existed.

* * * * *

At this stage of these remarks I ought, however, to observe, that there has been a partial drainage made on many parts of the land under these plantations; but this has been done inefficiently, and without system, consequently, it has not been available for the maintenance of the crop in full health and vigour.

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oaks, after so long a confinement; and the result now is, that these have generally, more or less, suffered in health, from the effects of too sudden exposure after the pines were removed.

* * * * *

I must, however, limit this general statement, and remark that, in the inclosure of the Forest of Alice Holt, a great part of the crop is comparatively good of its age, and will, under future good management, become valuable timber; this is the case where the soil is of a good and comparatively dry character, on which the oaks have, at an early stage, got the ascendancy over the nurses, and, consequently, have not been so much injured by them as others have been on the wetter and poorer portions of the land, where the oaks grew comparatively slowly, and became smothered by the nurses, which on such land grew more rapidly.

In addition to the neglect of timely-thinning, drainage also has been neglected in the past management of these woods. This forms another cause of the comparative inferiority of the crop on a considerable extent; for, had the important work of drainage been attended to, at least wherever wetness appeared, the trees in these plantations would have been generally more healthy than they now are, even under the unfavourable circumstances of close confinement in which they have existed. I ought to remark here, that there has been a partial drainage made on many parts of these plantations, but not sufficiently to dry the land, and make it available for the maintenance of the crop in full health and vigour.

Mr. Brown's next recommendations are made as regards—

"Thirdly, The system of management which should be adopted, for the future improvement of these woods."

He recommends that the whole extent of the forest should be thinned regularly and systematically every five years; that, for this purpose, the plantations should be divided into five equal portions, and that one portion should be thinned, drained, and in every respect put into proper order, each year successively.

I have already shown that the forest is already drained, according to the rules which Mr. Brown has, in another place, laid down for the guidance of persons having the management of plantations.

With regard to the proposal to divide the forest into five parts, in order that one-fifth part may be thinned annually, I beg leave again to inform you that, so long as the property has been under my charge, one-half of the forest has been thinned every year.

Previously to my perusing the various Reports made by Mr. Brown upon the other Royal Forests (printed *in extenso* in the Thirty-first Report), I had felt some surprise that he should have advised that one-fifth only of this forest should be thinned every year; but, on an examination of those documents, I am led to believe that the suggested mode of thinning involves

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involves some favourite theory, inasmuch as the same system is recommended in every instance. However much I may be indisposed to dissent from any rule laid down by Mr. Brown, either in theory or practice, I must beg, with submission to his judgment, to express my opinion that, in a forest of this size, my plan is better adapted to secure the regular and healthy growth of the plantations than even that recommended by him. I am well aware that, in a forest of larger extent, it would be practically impossible to thin every part in alternate years, but, in this forest, I have been enabled to proceed on that system, and I should be exceedingly loath to relinquish it (more especially as I have shown how successfully it has worked in bringing the trees, of 40 years old, to their present size) in favour of the plan now proposed. That Mr. Brown is himself an advocate of frequent thinning, is evident from his Report on the present state of Dean Forest (printed in the Thirty-first Report of the Commissioners of Woods, &c.), in which I observe that he makes the following observations:—

"It is now a well-ascertained fact, among practical foresters, that the more frequently "thinnings are made in a plantation of growing-trees, and the more they can be kept, as it "were, in the same state of atmosphere, and relative distance one to another in their tops "and branches, the more rapidly do they grow; and this can only be secured by frequent "thinnings, and by taking out few trees at a time."

It would appear, therefore, by Mr. Brown's own admission, that the plan I adopt is more likely to be conducive to the welfare of the plantations, than his proposal of thinning every part once in five years.

In concluding his remarks on this subject, Mr. Brown reiterates the assertion made by him in other places, that "the crop has hitherto been neglected." As I have shown, however, that there are 239 ¾ miles of drains in the plantations, of the dimensions which he advocates, and that the thinning has been conducted even more frequently than he recommends, and, in other respects, according to the rule which he himself adopts (*vide ante*, p. 32), I think I may venture to state, with some confidence, not only that his assertion is entirely without foundation, but that I have good reason for complaining of the terms in which that, and other similar assertions, implying neglect and mismanagement, on my part, have been made.

I now proceed to the fourth division of Mr. Brown's Report:—

"As to the annual value which may, under good management, be realized from the "plantations in the Forest of Alice Holt."

He commences by repeating (what I have already disproved) that "the plantations have "not been regularly attended to, and thinned," on which account, he states that there will fall to be removed, within the next period of five years, a considerable quantity of small and inferior trees, both in the shape of thinnings and as a clearance of the 262 A. 3 R. 28 P. of indifferent land, which it is proposed shall be cleared and replanted.

I am quite prepared to admit that, if there is to be an entire sacrifice of the crop in the 262 A. 3 R. 28 P., a great part of which I maintain will hereafter make valuable timber, there will indeed be a large quantity of thinnings to dispose of; but if, as I sincerely trust will be the case, for the sake of the future interests of the property of the Crown, it shall not be decided to clear the greatest portion of this land, the quantity of thinnings, referred to by Mr. Brown, will be very considerably reduced.

Before making any observations upon the estimates which he has submitted to you, of the future revenue to be derived from this forest, I think it right to state that, on an inspection of the sixteen annual accounts which I have rendered, it will be seen that, during that period, a clear revenue of 15,774 *l.* 8 *s.* 2 *d.* has been derived from this forest, being at the rate of 985 *l.* 18 *s.* 6 *d.* per annum, and equal to an annual rent of 10 *s.* 6 *d.* per acre; and I am sure that any person of experience in such matters will admit that this is as large a rental as the land would have produced under cultivation, exclusive of interest on outlay for buildings, &c.; and the revenue so derived, appears to afford a conclusive proof that the plantations have been well thinned, or so large an amount could not possibly have been received.

Having submitted the foregoing observations, in order to avoid any misconception of the remarks which it will presently be my duty to make, I proceed to examine Mr. Brown's estimates.

His estimate of gross receipt is,

	£.
For the first five years - - - - - - -	2,400 per annum.
For the second five years - - - - - - -	3,000 do.

From the detailed statement which he has given of the probable income to be derived in the year 1852–3, I learn that he has framed this estimate on the assumption that 280 tons of bark, which is one of the principal items of receipt, will be brought to sale in that year; and, as the gross receipts of each of the first five years are estimated at the same amount, I am justified in assuming that the same quantity of bark will be taken from the forest in each of those years.

In that period, therefore, there must be procured 1,400 tons of bark, and I will now endeavour to ascertain the manner in which this quantity is proposed to be provided.

It must be borne in mind that the estimate is framed on the assumption that the whole of the 262 acres, previously referred to, will be cleared in the course of the first five years, and, from a careful calculation, I find that there are at present on this land about 325 trees, upon an average, to the acre. Upon the whole extent there will, therefore, be 85,150 trees. I also find

find that it will take 300 of these trees to produce one ton of bark, and the whole of the trees on this area will, therefore, produce 284 tons, leaving 1,116 tons to be procured, during the first five years, from the rest of the forest.

I have caused careful enumeration to be made of the trees in various places, and I find that, upon the residue of the forest, there will be on the average of the trees, of various sizes and ages, about 200 on the acre, or 326,800, in the whole; and, in estimating the quantity to be removed in the period alluded to, it must be remembered that, in every case where the trees are 40 years old, and in a healthy condition, they are little more than half the number upon an acre (200) which Mr. Brown states there ought to be. If this system is to be acted upon, therefore, it would obviously be most improper to touch any of the trees of that age, inasmuch as he alleges that they are already much overthinned, and the entire quantity of bark &c., must be procured from trees of smaller dimensions, and of younger growth.

Of trees of this description, it will require 112 to make one ton of bark, and it follows, therefore, that it will take 124,992 trees to produce the residue of the quantity of bark which Mr. Brown states can be taken from the forest within that period, thus leaving, at the end of that time 201,808 trees on the entire forest, excluding the 262 acres of cleared and re-planted land.

During the following period of five years, Mr. Brown estimates the gross revenue at 3,000 *l.* per annum, and this sum, being an increase of 25 per cent. upon the previous income, I may assume that such increase can only be derived from the sale of 25 per cent. additional produce, and the bark sold must, therefore, instead of 280, amount to 350 tons a year, or 1,750 tons in the period of five years, none of which, it is evident, can be obtained from the 262 acres, which would be then so recently planted. I am not quite sure even that the healthy trees, of 40 years old, would (in Mr. Brown's opinion) have grown so thick as to require thinning; but, allowing that some actually required removal, and also making due allowance for the growth of the younger plantations, I am satisfied, from my experience, that, on the average, 37 pounds of bark would be the very utmost that could be taken from each tree (bearing in mind that their average age during this term of five years would be from 35 to 45 years), and it would, therefore, require 60 trees to make one ton of bark.

To produce 1,750 tons, therefore, it would be necessary to fell 105,000 trees, and, deducting these from the number left standing at the end of the first period of five years, it will be found that, at the expiration of 10 years from the present time, there would be 96,808 trees remaining in the forest (excluding the newly-planted land), being at the rate of 59 to the acre.

The plantations on which this average number of trees will be found, will then vary from 28 to 50 years of age, the mean age being 40 to 45 years. Mr. Brown however, states, in a former part of his Report, that, at the former age, there "ought to be" 200 trees upon the acre, whereas I have just shown that, if his proposal is carried out, there will be little more than one-fourth part of that number of trees left standing, and I would inquire, with every respect for his opinion, whether the term "injudicious thinning," which he has so freely applied to these plantations, when he estimated the number of trees of 40 years of age at 160 to the acre, will not be far more applicable to the forest when there shall only be 59 trees on the acre of all ages from 28 to 50 years.

I think it cannot fail to be perceived, from the foregoing remarks, that the crop has been shown to have been abundantly thinned both by the income which has been derived from it, and by the statements which I have given of the number of trees upon the ground; and it is my opinion that, unless the crop is sacrificed, the quantity of timber and bark proposed to be taken from the forest by Mr. Brown, cannot be procured.

With regard to Mr. Brown's estimate of expenditure, I only think it necessary to remark, that the clearing and replanting the 262 acres (without cutting any fresh drains, of which there are already a sufficient number), will cost from 13 *l.* to 14 *l.* per acre, instead of 8 *l.*, as estimated by him, thus making an increase of at least 260 *l.* per annum upon the first five years' expenditure, as estimated by him.

"Fifthly. Regarding the establishment which should be maintained for conducting, with all "due economy, the affairs of these woodlands."

Mr. Brown proposes that there should be two woodmen, and 10 day labourers, in regular employ, in lieu of the present staff of four woodmen, and two, or sometimes three, day-labourers; but I confess that there does not appear to me to be any advantage, but the contrary, in the change.

The duties of a woodman consist in the daily inspection and repair of the fences and the roads in his district. In the proper season, he superintends the bark-stripping, and the felling of the timber and thinnings, as well as the cleaning of the drains, a portion of which latter work he himself executes. He is also expected to be, at all times, within call, in order that when buyers of produce come to remove their several purchases, he may be at hand to unlock the gates, and keep the necessary check upon the quantity of stackwood or bark, &c., removed from the inclosure.

If there were only two of these men, each of them would have upwards of 10 miles of fence to go over daily and repair where necessary, and the extent of road under the charge of each would also be very large, and one consequence of the increase in the size of their several districts would be, that buyers of produce might call at their cottages, and have to wait a very considerable time before the men could be found to open the gates and deliver the produce, and I fear that serious complaints of loss of time would ensue.

With regard to the proposal to keep up a regular staff of 10 day-labourers, with extra assistance for stripping bark and felling trees, I think there are serious objections to its being entertained. In my humble opinion, in an extensive farm, or plantation, where the eye

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of the master, or superintendent, cannot be always upon his labourers, the less day-labour there is, the more cheaply and expeditiously will the work be done; and, acting upon this principle, I have reduced the day-labour in the forest to that of two or three men. If the number proposed by Mr. Brown were permanently employed, I could, of course, find work for them during the season for stripping bark and felling trees, but they would be comparatively idle, and a mere burden to the forest, during the winter months, as the proposition that they should "bring all the produce into a saleable state," which operation, under ordinary circumstances, would be performed at that period, is based upon a most superficial knowledge of the requirements of the forest.

It must be remembered that nearly the whole of the thinnings in the forest are cut into stackwood, which is burnt for charcoal, to be used in the month of September in each year, for drying hops. The whole of the thinnings, therefore, which are felled in May, must be converted into stackwood by the beginning of the following July, to be in readiness for the charcoal-burners; and if, for want of a sufficient number of hands, the stackwood was not ready by that time, I should unquestionably lose the sale of it, and have the stock left on hand, deteriorating until the next season. It is absolutely necessary, therefore, that a large number of men should be employed, in a period of little more than six weeks, to execute the work which Mr. Brown proposes should be done in the winter by the regular staff of labourers, and it is evident, therefore, that, at the latter season of the year, these men would be useless.

I may add, also, that this work is at present done by task-work, which is preferable to having it done by day-labour by a regular staff of men.

Sixthly. With respect to the 85 acres of land which have recently been purchased, and which it is proposed to plant with larch, for hop-poles.

When I went upon this land with Mr. Brown, he very candidly informed me that he had no experience in the planting or growth of larch for hop-poles, and I therefore fully explained my views to him as to the most advisable mode of proceeding to secure a profitable crop.

The whole of his observations as to the superiority of trenching, as a mode of preparing the land for the plants, the saving of first cost by adopting that plan, the proper distance which the plants should be placed in the ground, in order to rear good poles, and to bring the crop to maturity at an early age, are identical with the observations which I then made to him, and which he has adopted as his own, without having had the candour to acknowledge the source from whence they were derived.

In his estimate of the cost of preparing and planting the land with larch, Mr. Brown has adopted (also without acknowledgment) my estimate of 3 *l.* per acre for trenching, which was founded on a tender which had been made to me for the execution of the work. He has followed his own views, however, in estimating the cost of the larch-plants of 1 ½ feet high at 8 *s.* per 1,000, and I find that he is mistaken on that point, as the plants of that size which have been used for this land have already cost 12 *s.* per 1,000.

WOOLMER FOREST.

My comments upon the first portion of Mr. Brown's Report, have extended to such a length, and are, generally speaking, so perfectly applicable to the statements made respecting this forest, that I shall not be under the necessity of making a similar dissection of the various observations submitted by Mr. Brown as to the present state and future prospects of Woolmer Forest.

1st. As to the present condition of the plantations.

I do not propose to follow, seriatim, through his remarks upon each inclosure; these remarks it will be observed are, generally speaking, of a vague description; the charges of mismanagement being of the same character as those so repeatedly referred to in the first part of his Report, and I trust so satisfactorily refuted by me, viz., "injudicious thinning," and "partial drainage;" and I can only state that, in this forest as well as in Alice Holt, the trees have been thinned in conformity with the principles which, as already shown, Mr. Brown himself advocates and adopts, and that the system of drainage in operation, wherever the nature of the soil (for the most part, dry peat, or hungry sand) requires it, is precisely similar to that already described.

The only place in his remarks upon the inclosures in which he departs from a general vagueness, is that in which he refers to the crop upon the best soil in Lynchborough Inclosure, in regard to which he remarks, "It is a good loam, on which, very judiciously, a good "crop of oak has been planted; this is now about 40 years of age, and is in a very flou-"rishing condition; in proof of this, I may remark that there are 190 trees on the acre, with "an average diameter of nearly nine inches at six feet from the ground."

Mr. Brown is quite as inaccurate in his figures here, as in the foregoing Report, inasmuch as I find that, at the time of his visit, there were 100, instead of 190 trees, to the acre. It is very gratifying, however, that he should testify to the "very flourishing condition" of the crop, more especially as, in the preceding Report, he has stated that "there ought to be" 200 trees of this age to the acre, and has alleged that the trees have been much "over-"thinned," and that a "severe and injudicious thinning" has taken place where there were less than that number per acre.

To those assertions, I have already replied; but Mr. Brown's admission that the crop here is in a "very flourishing condition," although I have shown that there are only 100 trees to the acre, is perhaps a more satisfactory reply to any charges of mismanagement, arising from

overthinning

overthinning the plantations of 40 years of age, than the statements I have placed before you.

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2d. "As to the system of management which should be adopted for the future improve-"ment of these woods."

Mr. Brown's recommendations are to the effect that the pine-trees, on the poorer parts of the land, should be cleared at once; that the residue should be divided into five parts, one of which should be systematically thinned once in every five years, and that certain limited drainage-operations should be carried into effect.

On the first of these points, I propose to make a few observations in my concluding remarks.

As regards the thinning, I can only state that every part of these woods has been regularly and systematically thinned since the forest has been in my charge.

I might, if it were necessary, enter into full details of the drainage now existing in these plantations; but, having already shown the inaccuracy of the statements made by Mr. Brown in his Report upon Alice Holt, I trust that any remarks, on my part, other than that the same system has been carried out in this forest wherever the nature of the soil required it, will be deemed unnecessary.

I may say here, that Mr. Brown made his inspection of these forests in the wettest season known for many years, and that the inclemency of the weather prevented him from devoting more than four hours and a half to the inspection of Woolmer; and it may be observed, that as the inclosures are situated in different parts of a forest of nearly 6,000 acres, and as Mr. Brown never dismounted from his horse, or quitted the rides, it was practically impossible that he could have made any other than a most cursory inspection, or have seen one-tenth part of the contents of the several inclosures.

3dly. "As to the annual value which may, under good management, be realized from "these plantations."

Mr. Brown estimates a gross receipt of 1,200 *l.* per annum for two years, 1,250 *l.* for the third, and 1,300 *l.* per annum for the fourth and fifth years. And I observe that, in the detailed estimate for the first year, he proposes to obtain 25 tons of oak-bark for sale; and it may be presumed, therefore, that at least a similar quantity will be required in the succeeding years.

It must be borne in mind, that the oak-plantations here are, generally speaking, younger than in Holt Forest; and, although they have been fairly thinned, I have never yet procured in any one year, with the exception of the three years 1846–7, 1850–1, and 1852–3, much more than 10 tons of bark from the said forest; and I can only state that, if the quantity mentioned by Mr. Brown be taken from the forest in each of the next five years, it can only be procured by sacrificing a very considerable portion of the crop which ought to stand to maturity.

Mr. Brown states that he has framed his estimate upon the principle of thinning systematically the healthy portion of both the oak and pine-crop, and of gradually cutting down the inferior "portions of these as they would arrive at maturity;" but I fear that, if his estimate be acted upon, the principle he alludes to, will be entirely lost sight of, as the main portion of the oak-crop must be destroyed long before it arrives at maturity.

4thly. "Regarding the establishment which should be maintained for conducting, with all due economy, the affairs of these woodlands."

I cannot concur, for the reasons already stated in my remarks under this head in Holt Forest, in Mr. Brown's recommendation, that the number of woodmen should be reduced from four to three.

With regard to his recommendation that no regular establishment should be kept up, beyond the woodmen, and that the thinning, &c. should be executed by contract, and at the lowest possible price, I beg to state that the plan which Mr. Brown advises, as if the suggestion was a novelty, has been acted upon for many years, as I explained to him when accompanying him in his inspection.

With regard to his suggestion that the Crown allotments should be sold to the best advantage, I beg leave to remark that, by the Act 52 Geo. 3, c. 71, the Crown has only the power of keeping inclosed a certain portion of the forest for the growth of timber, and that there are only about 147 acres of freehold land belonging to the Crown, which it would, I apprehend, be expedient to sell, without an Act of Parliament being first obtained for disafforesting and inclosing the forest.

With regard to the best mode of dealing with the forest, if it should be retained, and if the inferior pine-crop should be removed, I beg leave to refer you to my letter of 2d December 1852, in which I stated that, in conversation with Mr. Brown, he had fully approved of the suggestion which I had previously made to you verbally, to plant extensively with larch, for hop-poles.

A great part of the forest is well suited for growing larch, for this purpose; and, taking into consideration the growing scarcity, and the rise in the price of poles, this mode of appropriating the land, if not inconsistent with the provisions of the Act, appears to offer not only a return for the outlay, but a liberal rent for the land occupied by the plantations.

In thus concluding the series of observations which, by Mr. Bedford's official letter of 20th October last, you requested me to make upon Mr. Brown's Report on the forests under my charge, I have only to remark that I shall, at all times, be ready to carry out, to the best of my ability, any instructions which you may issue to me for my guidance in the future management of these plantations; but, I venture to hope, that those instructions may not be

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in conformity with the recommendations of Mr. Brown, which, if carried into effect, would, in my humble opinion, prove to be destructive to the best interests of the Crown.

I have, &c.

Mr. Brown's Reports.

The Right Hon. T. F. Kennedy. (signed) *N. Higinbothom.*

No. 5.

Sir, Office of Woods, &c., 3 January, 1854.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests, to acknowledge the receipt of your letter of the 29th December, in which you acknowledge the receipt of my letter of the 20th of October last, transmitting copy of Reports, by Mr. Brown, on Alice Holt and Woolmer Forests, and stating that, in compliance with the Commissioner's request to receive from you such observations as you might wish to make, you beg to forward to the Commissioner such remarks as appear proper to be made thereon.

The Commissioner observes that the Report is a full and elaborate statement, and it was his wish that you should have every opportunity of making any observations you might think proper; and he is glad that you should have availed yourself of the opportunity of so doing. But, as the Commissioner has never before received from you any written documents of a character at all similar to that now transmitted, and, as it is essential that he should know whose opinions it is with which he is called upon to deal, he has to request that you will inform him whether the Report now transmitted is entirely prepared by yourself, although written in the hand of another person.

The Commissioner is under the impression that you have resorted to Mr. Clutton, for advice and assistance in preparing this Report, because he observes great similarities of opinion and of language to that which has been expressed and used by that gentleman, in relation to other forests, to those expressed in the Report now sent by you; and he desires me to request that you will have the goodness to state, whether you have, directly or indirectly, received the assistance of Mr. Clutton in the preparation of this Report, and if so, to what extent; and if not from Mr. Clutton, whether you have resorted to any other person, and whom.

I am, &c.
(signed) *G. S. Bedford.*

P. S.—The Commissioner desires to have your reply to this letter, by return of post, marked "private" on the envelope.

N. Higinbothom, Esq.

No. 6.

Sir, Office of Woods, &c., 4 January, 1854.

I HERETO annex copy of a letter which I addressed to Mr. Higinbothom, on the 20th of October last, transmitting to him a copy of your Reports on Alice Holt and Woolmer Forests; and I also annex a copy of a Report I have received from him, containing such observations as he has wished to make, and I am now desirous that you should have an opportunity of making any statement and observations you may desire upon the Report furnished by Mr. Higinbothom.

I also annex a copy of a letter which I have thought it necessary to address to Mr. Higinbothom, in relation to his Report; and I further annex, for your information, copy of a Report which I have this day made to the Lords Commissioners of Her Majesty's Treasury.

I take this opportunity of observing, that I am desirous to receive from you, with all the despatch you may find convenient, in the first place, the further Report on the Correspondence and Report by Sir J. Campbell, recently sent to you; and secondly, as soon as may suit your convenience, your observations on Mr. Higinbothom's Report; it being important that these documents should be transmitted, with as little delay as may be, to the Treasury.

I am, &c.

Mr. James Brown. (signed) *T. F. Kennedy.*

No. 7.

My Lords, Office of Woods, &c., 4 January, 1854.

IN connexion with the Report which I addressed to your Lordships on the 24th December, transmitting Correspondence with, and Report from, Sir James Campbell on Bere and Parkhurst Forests, I now beg leave to transmit to your Lordships documents connected with Alice Holt and Woolmer Forests.

I annex copy of a letter which I addressed to Mr. Higinbothom, on the 17th of November 1852, acquainting him of my intention that Mr. Brown should visit and report on Alice Holt and Woolmer Forests.

For

Alice Holt and Woolmer Forests.

Mr. Brown's Reports.

For the same reasons as those stated in my recent Report to Parliament, and in my Report of the 24th of December to your Lordships, I delayed to transmit to Mr. Higinbothom copies of Mr. Brown's Reports on Holt and Woolmer, but, on the same grounds on which I acted in Sir James Campbell's case, I addressed a letter to Mr. Higinbothom, on the 20th of October 1853, transmitting copy of Mr. Brown's Reports.

I now beg leave to transmit to your Lordships a copy of a Report which I have received from Mr. Higinbothom, bearing date the 29th December; and, as it is an elaborate document, written in reply to Mr. Brown's Reports, and materially involving the accuracy and skill of that gentleman, I have, as in all other cases, transmitted a copy of Mr. Higinbothom's Report to Mr. Brown, in order that he may make such observations as he may think fit, and, so soon as I receive Mr. Brown's reply, I shall transmit a copy to your Lordships; but I am aware that, from the nature and extent of Mr. Brown's occupations, a considerable time must elapse before I can receive Mr. Brown's reply, and until then, all judgment on the opinions and statements contained in Mr. Higinbothom's Report must, necessarily, be suspended.

But, while I lose no time in transmitting a copy of Mr. Higinbothom's Report to your Lordships, I think it proper, at the same time, to transmit a copy of a letter which I have considered it to be necessary to be addressed to Mr. Higinbothom, in order to procure from him a distinct explanation.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Honourable the
Commissioners of Her Majesty's Treasury.

No. 8.

Sir, 24 A, Bryanston-square, 9 January, 1854.

I HAVE the honour to acknowledge receipt of Mr. Bedford's official letter of the 3d instant, which reached me on my arrival in London, having been forwarded from Liverpool on the 4th instant, after my departure on that day for resumption of my duties. In consequence of the late severe snow-storm, I was detained at Crewe, on the night of the 4th, and, being unable to continue my journey, returned to Liverpool, where I arrived late on Saturday night.

I mention these particulars, as you direct me to reply by return of post, which, under the circumstances, it was not in my power to do.

With regard to the observations on Mr. Brown's Report, which I had the honour to transmit to you on the 29th ult., I beg to state that, although not in my handwriting, they were of my own working-out, and that, however much I might be benefited by the experience and judgment of Mr. Clutton in such matters, I did not resort to him for advice, or assistance, in preparing my Report. The similarities of language and opinions, therefore, to which you advert, are very satisfactory to me, as confirmatory of Mr. Clutton's recorded opinion of the management of the forests under my charge at the period of Lord Duncan's Committee.

That I have noticed, to several of my friends, the grave charges made by Mr. Brown, in his Reports on Holt and Woolmer Forests, and the facts it was my intention to bring forward in disproof of them, is most true; and it is very probable that I have, in the discussion of such facts, adopted some expressions not my own, which seemed to convey more clearly my views on the subject. But, I beg to assure you, that the statement which I had the honour to submit for your consideration was of my own preparation and working out, and of which I am fully prepared to take the entire responsibility.

I have, &c.
(signed) *N. Higinbothom.*

P. S.—I have, in compliance with your directions, marked the envelope "private."

The Right Honourable T. F. Kennedy.

No. 9.

Sir, Office of Woods, &c., 10 January, 1854.

REFERRING to my letter of the 4th of January, in which I stated that I had addressed a letter to Mr. Higinbothom, on the subject of his Report, I now enclose copy of a letter which I have received from him, in reply, dated 9th of January.

I am, &c.
(signed) *T. F. Kennedy.*

James Brown, Esq.

Alice Holt and Woolmer Forests.

Mr. Brown's Reports.

No. 10.

Sir, Office of Woods, &c., 18 January, 1854.

I AM, &c., to inform you that it is necessary that Mr. Brown should revisit Alice Holt Forest, and this letter will be delivered by him, in order that he may receive every facility; and I am to desire that the foreman of the forest may accompany him in the examination to be made, so far as Mr. Brown may wish to have his assistance.

I am, &c.

N. Higinbothom, Esq. (signed) *Wm. Ash.*

No. 11.

Sir, Treasury Chambers, 20 January, 1854.

I AM commanded by the Lords Commissioners of Her Majesty's Treasury, to acknowledge the receipt of your letter of the 4th instant, transmitting correspondence between yourself and Mr. Higinbothom, deputy-surveyor of Alice Holt and Woolmer Forests, on the subject of Mr. Brown's Reports regarding the management of those forests; and I am to desire that you will request Mr. Brown to make, at the earliest possible period, such observations as he wishes to offer on Mr. Higinbothom's letter of the 29th December, which you have forwarded to him.

My Lords, also, desire that you will transmit to this Board any further letters which you may possess in connexion with this subject, in order that the correspondence may be complete.

I remain, &c.

The Right Hon. T. F. Kennedy. (signed) *James Wilson.*

No. 12.

My Lords, Office of Woods, &c., 23 January, 1854.

I BEG leave to acknowledge the receipt of Mr. Wilson's letter of the 20th January, acknowledging the receipt of my letter of the 4th instant, with which was transmitted correspondence between myself and Mr. Higinbothom, deputy-surveyor of Alice Holt and Woolmer Forests, on the subject of Mr. Brown's Reports regarding the management of these forests, and desiring that I will request Mr. Brown to make, at the earliest possible period, such observations as he wishes to offer on Mr. Higinbothom's letter of the 29th December, which I have forwarded to him. I beg leave to state, in reply, that in forwarding Mr. Higinbothom's letter to Mr. Brown, I anticipated your Lordships' wishes in this respect, and that I have repeated an expression of the same desire to Mr. Brown; but I am aware that Mr. Brown has so arranged that his reply to Sir James Campbell, and also a short report on the affairs of Chopwell Woods (in order to enable me to comply with your Lordships' instructions on that subject), should take precedence of the observations, in reply to Mr. Higinbothom, these papers being already nearly completed.

Having regard to the elaborate character of Mr. Higinbothom's Report, and the serious differences on matter of fact between Mr. Brown's original Report on Alice Holt Forest, and Mr. Higinbothom's reply, I am also aware that Mr. Brown will consider it to be necessary to address himself very deliberately to the subject, and to deal with the facts of the case in such a manner as eventually to leave no doubt in your Lordships' minds on the issue, whether Mr. Higinbothom, or Mr. Brown, is correct in his statement of facts. Whatever confidence I may have in the correctness of Mr. Brown, it would not be fitting that I should anticipate statements which he may choose to make; but, considering the serious difference between the parties, it is right that I should state to your Lordships that some matters of fact are officially known to me which are likely to give to the subjects a very serious and grave character; and, it is probable, that I may think it my duty to make a statement to your Lordships.

In the conclusion of the letter of the 20th of January, your Lordships "also desire that "you will transmit to this Board any further letters which you may possess in connexion "with this subject, in order that the correspondence may be complete." The only letter to which I think this desire applies, is a letter from Mr. Higinbothom, dated the 9th of January, in reply to a letter which I had addressed to him on the 3d, and of which I transmitted a copy to your Lordships on the 4th. I had delayed to trouble your Lordships with this letter of Mr. Higinbothom, until I should transmit, at the same time, Mr. Brown's further Report; but, in obedience to your Lordships' desire, I now annex a copy, from which it appears that Mr. Higinbothom had not resorted to Mr. Clutton for assistance in preparing his Report, but that he identifies himself with Mr. Clutton in the principle of the management of the forest under his care; and that he is prepared to take the entire responsibility of his Report of the 29th December, a responsibility which he may probably find to be no light matter.

The Right Honourable the Lords Commissioners of Her Majesty's Treasury.

I have, &c.

(signed) *T. F. Kennedy.*

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Mr. Brown's Reports.

No. 13.

My Lords, Office of Woods, &c., 26 January, 1854.

In a letter which I had the honour to address to your Lordships on the 23d January, in relation to Mr. Higinbothom's reply to Mr. Brown, I stated that it was probable that I might consider it to be my duty to make a statement to your Lordships, and that the responsibility which Mr. Higinbothom incurred, from the contents of his Report, was no light matter. I have decided that it is incumbent upon me to deal with a portion of Mr. Higinbothom's Report of the 29th of December, irrespective of all statements which may be made by Mr. Brown; and I shall now proceed to do so. I consider it necessary that I should take this course, inasmuch as, if I failed to do so, it would appear that I had no opinion of my own on the subject; that I leant upon Mr. Brown; and that I was myself incompetent, from knowledge or judgment, to deal with the matters brought forward by Mr. Higinbothom, and that, without the assistance of others, I was open to be the dupe of any species of imposture.

It will be necessary that I should clear the ground, by a short preliminary statement, and then proceed to deal with the facts arising out of a certain section of Mr. Brown's and Mr. Higinbothom's Reports; and it is not my intention to enter into the discussion of matters of opinion, or speculation, but to confine myself to certain matters of fact, and to the results and inferences which are necessarily derived from them.

1st. It is necessary to bring into distinct view, and to fix certain dates which affect the question, and which affect the respective parties. Mr. Brown was instructed to visit Alice Holt Forest on the 17th November 1852, and, I believe he did so, on the 19th of that month, Mr. Higinbothom being informed, on the 17th, that he was to do so; but Mr. Brown did not make his Report till the 31st of March 1853, having been more than occupied, in the interval, by other important matters. His Report, therefore, professes to treat, and actually treats, of the state of the forest in November 1852; and, necessarily, includes no statement which relates to facts subsequent to November 1852.

2d. A copy of Mr. Brown's Report was not transmitted to Mr. Higinbothom until the 20th of October 1853, for the reasons stated in my Report to Parliament, consequently, he could have, and had, no knowledge of its contents until that date.

Mr. Higinbothom's Report, in reply, is dated the 29th of December 1853, consequently, it must have been prepared between the 20th of October and the 29th of December 1853, and the state of the facts in the forest must be taken to be, and are, by the words of Mr. Higinbothom, as they existed in November 1853, one month previous to the date of his elaborate Report, and 12 months after the date of Mr. Brown's inspection of the forest on which his Report is founded.

Mr. Brown's Report refers to November 1852.

Mr. Higinbothom's Report, therefore, refers to November 1853.

Mr. Higinbothom correctly quotes certain statements of fact by Mr. Brown, and then proceeds to controvert and deny their accuracy and truth. I proceed to analyze the respective statements, so far as regards a certain class of facts relating to the number and dimensions of trees on the several inclosures of which the Crown allotment in Alice Holt Forest is composed.

Great Lodge Inclosure.

Mr. Brown.	*Mr. Higinbothom.*
"About 150 acres much overthinned, there "being only on an average 160 trees on the "acre, while there ought to be 200, and, "from measurement, I found these to have a "medium diameter of seven inches at six feet "from the ground."	"I have ascertained, from actual enumer- "ation and measurement of the trees on "several acres fairly selected as average "specimens of the growth of the plantation, "that there are less than 100 trees per acre, "and that their medium diameter rather ex- "ceeds ten inches, instead of seven inches."

Here is Mr. Brown's statement in November 1852, and Mr. Higinbothom's contradiction, in November 1853; and, to give any weight to that contradiction, it must necessarily apply to the precise state of facts and time, to which Mr. Brown's statement relates, and every correct-minded person who reads Mr. Higinbothom's contradiction, necessarily assumes that he means to contradict the facts which Mr. Brown asserts, under all the circumstances of identity of time; and, if he does not, the contradiction is at once valueless. How stands the case? During the months of May and June 1853, an extensive thinning of the Great Lodge Inclosure took place; a large quantity of bark (238 tons) was sold from the whole forest, and I have reason to know that nearly 77 tons (out of the 238) were produced from Great Lodge Inclosure. It is not easy to say how many of the smallest trees must have been cut down in May and June 1853, to produce 77 tons of the bark of young trees, but it is clear that a very large number could alone produce such a quantity of bark. Be the number what they may, the whole of them were standing when Mr. Brown inspected the forest, in November 1852, and were cut when Mr. Higinbothom passed his Report in November and December 1853. Mr. Higinbothom suppresses this fact, and it may indeed be

Alice Holt and Woolmer Forests.

Mr. Brown's Reports.

be true that there were, in November 1853, less than 100 trees on the acre, while, in November 1852, Mr. Brown's assertion is strictly correct, that there were then an average of 160. Where, then, is the truth of Mr. Higinbothom's contradiction founded,—on a suppression of an all-important fact, quite of sufficient magnitude to account for the whole difference between Mr. Brown's assertion and Mr. Higinbothom's contradiction. Mr. Higinbothom's contradiction is at once utterly discredited and set aside, by the simple statement of these circumstances; and it is no longer possible to place the slightest reliance on any statement which he makes. He is placed in a dilemma from which he cannot escape. Facts generally require to be established by extrinsic evidence; but, in this case, the intrinsic evidence of circumstances, which do not admit of contradiction, render further evidence superfluous.

It may, or may not, be true that there are less than 100 trees on the acre, at the present time, as Mr. Higinbothom represents. With that fact, I do not profess to deal, further than to make one observation, viz., that, if Mr. Higinbothom's statement be true, that there are less than an average of 100 trees on the acre, I should consider that he has gone far to ruin the plantation; but I greatly doubt the fact. Mr. Brown will, no doubt, deal with this subject when he comes to report, and there may arise that other question, as to the truth of Mr. Higinbothom's statements; but, in the meantime, I restrict my observations to the statement of Mr. Brown, in November 1852, and to that of Mr. Higinbothom, in November 1853, and to the important fact, with the conditions arising out of it, which is suppressed by Mr. Higinbothom.

Mr. Brown stated the medium diameter of the 160 trees, at six feet from the ground, to be seven inches. Mr. Higinbothom denies the truth of that assertion, and states, that the average diameter of less than 100 trees per acre exceeds 10 inches. It is easy to see that, if a large number of the smallest trees are cut out of a young wood, the average diameter of the number of the larger ones which remain, must be largely increased. If, for example, the average diameter of 160 trees be seven inches, and 60 of the smallest trees are cut down, it is clear that the average diameter of the 100 which remain may be 10 inches. But, where is the truth and fairness of such a statement? It is, on the contrary, deceptive, fraudulent, and untrue; and the suppression of the facts is clear evidence of the untruthfulness of the comparison which has been made, and of the contradiction which has been given.

On this subject, I must add, that Mr. Higinbothom's is not a fair statement; because, while Mr. Brown estimates the diameter of trees by taking the average diameter of a large number, Mr. Higinbothom speaks of trees fairly selected as average specimens. There is a material difference between specimens selected, and an average size, actually taken from a large number.

Having disposed of the case of one inclosure, and made my observations upon it, I will proceed to dispose of the cases of the other inclosures more briefly, leaving the observations which I have made, to apply to them, so far as they may be applicable.

The Straights Inclosure.

Mr. Brown.	*Mr. Higinbothom.*
"One hundred and thirty acres of this inclosure comparatively dry, and here there are 180 trees on the acre, 40 years of age, with an average diameter of eight inches at six feet from the ground, and of promising, healthy character. The remainder of the inclosure, extending to 100 acres, is damp, and will never become valuable."	"There are not 100 trees upon the acre here, as I have ascertained from actual enumeration. Their average diameter is over 10, instead of eight inches, at six feet from the ground."

Here is a flat contradiction, in November 1853, of Mr. Brown's statement, in November 1852; but, again the fact is suppressed, that the inclosure was thinned in the summer of 1853, and a little more than 33 tons of bark produced from it. Trees were cut in the summer of 1853, which were standing when Mr. Brown inspected the forest, but this fact is boldly kept out of view. It is, as before, the same valueless contradiction, because the fact of thinning, with all its consequences, is suppressed. It is not the contradiction of a fact stated by Mr. Brown, but the statement of a different fact, under circumstances wholly changed, and the change unacknowledged. In the same way, the diameter is unavoidably increased by the thinning of the wood, if the diameter stated by Mr. Higinbothom be correct.

Goose Green Inclosure.

Mr. Brown.	*Mr. Higinbothom.*
"Forty-two acres, under a very promising crop of oak, 180 trees on the acre, and these have an average diameter of eight inches. The remainder of the inclosure, 185 acres, in a fair state of health, but very irregular as to the number of trees on the acre; in some parts, I counted 160 on the acre, while, on others, I counted 250, at an average diameter of five inches."	"Mr. Brown's estimate is again strangely inaccurate; there are not 100 trees on the acre, and their average diameter is 10, instead of eight inches, at six feet from the ground."

Here

Here is a similar contradiction, and a similar suppression of the fact of thinning, and a similar alleged larger diameter; the whole statement open to the same observations which I have already made; and, out of this inclosure, there was taken, in the summer of 1853, about 28 tons of bark from trees of a small size, necessarily inferring a proportionally large number being cut.

ABBOT'S WOOD INCLOSURE.

Mr. Brown.	*Mr. Higinbothom.*
"The trees, generally, in a fair state of "health, and promise to become first-rate "timber, under good management, but irre- "gularly distributed over the ground. On a "considerable extent, there are about 160 "trees on the acre, and these have lately "been much overthinned; while, on other "portions, there are 260 trees on the acre, "and these have been neglected, and not "thinned sufficiently. The average diameter "of the trees here, I found to be about six "inches, at six feet from the ground."	"I find about 100 on the acre, with a dia- "meter of nine inches instead of six."

Here is a concise and flat contradiction, without any distinction, of the two portions of the inclosure, on which Mr. Brown states the number of trees to be so dissimilar. It would be remarkable if Mr. Brown should have made such a gratuitous blunder as to state that there are 160 and 260 trees respectively on two portions of the forest, while, about 100 only, existed over all. With respect to this inclosure, I am unable to state the facts as to the thinning in the summer of 1853; but Mr. Brown will, no doubt, clear up this matter in his Report, and also deal with the question of the 100 trees, as applicable to both portions of the inclosure, which must be ruined, if there are only about 100 trees standing.

WILLOW GREEN INCLOSURE.

With respect to this inclosure, I do not mean to make any observation, because there is no statement, or contradiction, as to the number of trees, nor as to their diameter; but there was about 22 tons of bark produced from the inclosure, in the summer of 1853.

GLENBERVIE INCLOSURE.

Mr. Brown.	*Mr. Higinbothom.*
"Of this inclosure, about 200 acres are in "a tolerable state of health, and will become "timber of good value. The trees, on these "200 acres, vary very much, both in respect "to the number per acre, and the diameter of "their stems. Where the land is a good loam "and dry, they average 180 per acre, with "an average diameter of about seven inches; "while, on the portion of land of inferior "character, and naturally damp, they average "only five inches diameter, with nearly 300 "on the acre."	"I find about 100 trees to the acre, with "a diameter of eight inches."

Mr. Higinbothom's statements become more startling, as he proceeds; and, if it be true, that he has reduced the number of trees to 100 per acre, I should say that he has ruined a plantation of the age of this inclosure; but I greatly doubt the fact, as to which Mr. Brown will, no doubt, report in due time. But again, there is the suppression of the fact, that the inclosure was thinned in 1853, and produced about 55 tons of bark; and here, as before, Mr. Higinbothom professes to contradict Mr. Brown, while Mr. Brown reports in November 1852, and Mr. Higinbothom contradicts in November 1853, and suppresses the fact of the change which he has effected in the interval, even if he correctly states the existing state of things at the date of his own Report.

HOLT POUND INCLOSURE.

With respect to this inclosure, Mr. Brown makes no statement of the number of trees per acre, and, consequently, there is no contradiction by Mr. Higinbothom. But this inclosure produced about 19 tons of bark, in the season of 1853; and, consequently, it had been thinned, but no mention of the fact is made by Mr. Higinbothom.

I have now concluded the statement of facts which I proposed to make, and have made certain observations on them, as they occur; and the impression which such facts must make on any fair and honourable mind is such, as to render further commentary by me unnecessary.

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unnecessary. That Mr. Brown will deal with those facts conclusively in his Report, I can entertain no doubt; but I have felt it to be indispensable, without waiting for any report from Mr. Brown, to lay my views, to the extent I have done, before your Lordships.

It is not my intention to advert to those parts of Mr. Higinbothom's Report which consist of controversial opinion and discussion, because, where I find an entire absence of fidelity in the statement of facts, I will not stoop to reason, or to discuss. I consider Mr. Higinbothom to have made a daring attempt to impose upon me, and to blast the reputation of Mr. Brown; and it seems to me that the attempt must recoil upon himself, and that he must eventually find it to have been a most perilous proceeding. When I first hastily perused Mr. Higinbothom's Report, I was strongly impressed with the persuasion that it was not prepared by himself, and such is still my opinion, because any one who knows Mr. Higinbothom, knows how little he has of the habits of business, or of composition; and the report, under discussion, must be admitted to be a very able report, if it had only for its foundation, reality, fact, and truth. There is, in my apprehension, internal evidence that the report has been prepared by other persons; and I am of opinion, that Mr. Higinbothom will deeply regret having employed and permitted persons, whoever they may be, to make statements so unscrupulous. In making these observations, I feel bound to say that, on a careful perusal of this report, I think there is internal evidence that Mr. Clutton had nothing to do with its preparation (which, on an imperfect perusal of it, I thought might have been the case). I entirely acquit him of having any participation in such statements as have been made; and, although Mr. Higinbothom identifies himself with Mr. Clutton's opinions in forest-management, there is no blame to be attached to a difference of opinion, while there can be but one opinion with respect to statements, purporting to be facts, but which are the reverse of facts, and which are intended to deceive in one quarter, and to destroy character in another.

I shall pause, until I receive Mr. Brown's further report, and will instantly transmit copy of it to your Lordships; but I can entertain no doubt as to the course which it will eventually become my duty to pursue, as regards Mr. Higinbothom, founded on the facts which are at present known to myself, altogether independent of the statements which may be made by Mr. Brown, but which will, no doubt, augment the number and decisive character of the facts connected with this subject.

In conclusion, I beg to request that my letter of the 23d of January, and this letter, may be added to the correspondence which is being printed under your Lordships' instructions.

I have, &c.
(signed) *T. F. Kennedy.*

The Lords
Commissioners of Her Majesty's Treasury.

No. 14.

Sir,

Treasury Chambers, 1 February, 1854.

Having laid before the Lords Commissioners of Her Majesty's Treasury, your letter of the 26th ultimo, further upon the subject of the differences between Mr. Higinbothom and Mr. Brown, with regard to the management of Alice Holt Forest, I am directed by their Lordships to desire that you will furnish Mr. Higinbothom with a copy thereof, in order that he may have an opportunity of furnishing such explanations as he may think fit.

I am, &c.
(signed) *James Wilson.*

The Right Hon. T. F. Kennedy.

No. 15.

Sir,

Office of Woods, &c., 1 February, 1854.

I am commanded by the Commissioner in charge of Her Majesty's Woods and Forests to inform you that, by desire of the Lords Commissioners of Her Majesty's Treasury, the Commissioner herewith transmits to you copy of a Report made by him to their Lordships on the 26th of January, on the subject of your Report, dated 29th December 1853, relating to Mr. Brown's Report on Alice Holt Forest, transmitted to you on the 20th October last. The Commissioner's Report is transmitted to you, in order that you may have an opportunity of furnishing such explanations as you may think fit; and, it is requested that you may do so, with all convenient dispatch.

I am, &c.
(signed) *G. S. Bedford.*

N. Higinbothom, Esq.

No. 16.

Sir,

Holt Lodge, 6 February, 1854.

I must express my regret that, before communicating to the Lords of the Treasury, such serious imputations against my veracity as are contained in your Report of the 26th ultimo, you did not state to me the doubts which had arisen in your mind; I beg leave respectfully to observe, if you had done so, I should have been enabled to show that, from a misconception

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ception of some important facts, you had been led to form erroneous conclusions, and I should, I have no doubt, have satisfied you that there is no ground whatever for the grave charges you have brought against me. I am prepared now to offer the fullest explanations on the subject; but, as I now learn that my letter of the 29th December last has been referred to Mr. Brown, I submit, with due deference, that I am entitled to request, that the whole of the observations which may be made upon my statements may be communicated to me, before I am called upon to answer any part of them.

If you, or the Lords of the Treasury, are pleased to transmit Mr. Brown's Report to me, when completed, I shall be ready to reply to all the observations which have been, or may be made, tending to impeach the accuracy of the statements contained in my letter of the 29th December last; and, in the meantime, I beg to request that a copy of this letter may be forwarded to their Lordships, in order that they may be made aware of the cause of the apparent delay, on my part, in furnishing a reply to the serious imputations cast upon me.

I have, &c.
(signed) *N. Higinbothom.*

P. S.—As Mr. Brown re-visited the forest on the 19th ultimo, and has, therefore, already had three weeks since that time to make his further Report, I believe that the course I have adopted will not be productive of much delay.

The Right Hon. T. F. Kennedy.

No. 17.

Sir, Office of Woods, &c., 7 February, 1854.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests, to acknowledge the receipt of your letter of the 6th instant, requesting that, before answering the statement contained in his Report to the Treasury, dated the 26th January, on the subject of your Report of the 29th December, you may be furnished with a copy of such observations as Mr. Brown may make on your Report, and to acquaint you, that no delay whatever shall take place in furnishing you with a copy of Mr. Brown's observations, so soon as they shall be received; but, as Mr. Brown has been occupied on other important matters which necessarily took precedence of the subject of Alice Holt Forest, the Commissioner does not expect to receive Mr. Brown's Report, probably for 10 days from this time; but, if it shall be sooner received, no time shall be lost.

The Commissioner, however, is of opinion that the statement contained in his Report is of so definite a nature, that an explanation might be made without waiting for Mr. Brown's Report.

I am to acquaint you, that the Commissioner will at once transmit a copy of your letter of the 6th, and of this letter, to the Lords Commissioners of Her Majesty's Treasury.

I am, &c.
(signed) *G. S. Bedford.*

N. Higinbothom, Esq.

No. 18.

My Lords, Office of Woods, &c., 7 February, 1854.

I BEG leave to annex, for your Lordships' information, copy of a letter which I have this day received from Mr. Higinbothom, together with a copy of the answer which I have this day directed to be sent to him.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Honourable the
Lords Commissioners of Her Majesty's Treasury.

No. 19.

Sir, Office of Woods, &c., 9 February, 1854.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests, to state to you, in reference to the letter addressed to you on the 7th of February, in which you are informed that no time should be lost in transmitting to you a copy of Mr. Brown's Report, so soon as it is received, that the Commissioner did not intend you to suppose that, while it was proper you should have Mr. Brown's Report with the least possible delay, you should mix up the Commissioner's Report to the Treasury with the Report of Mr. Brown, and make one explanation on both. On the contrary, the Commissioner's Report to the Treasury is entirely distinct from any Report which Mr. Brown may make; and the Commissioner must desire to receive an explicit explanation by you, applicable to the matter contained in his own Report alone, separate and distinct from the explanations which you may choose to make on Mr. Brown's Report when you receive it. It is for you, therefore, to decide whether you will delay to make your explanation on the Commissioner's Report, until

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until you have seen the Report of Mr. Brown; but, whether you make your explanations on the Commissioner's Report a little sooner or later, those explanations must be embodied in a distinct and separate Report.

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N. Higinbothom, Esq.

I am, &c.
(signed) *G. S. Bedford.*

No. 20.

Sir, Arniston, 10 February, 1854.

I HAVE had the honour to receive your letter of the 4th ultimo, annexing copy of a letter which you addressed to Mr. Higinbothom on the 20th of October last, along with my Report on Alice Holt and Woolmer Forests; also copy of a Report received from him, containing his observations on my Reports respecting these forests; and in your letter to me you request that I should, with as little delay as possible, send you any observations I may have to make on Mr. Higinbothom's Report. Having carefully read this Report, which bears date the 29th of December last, and finding that it relates chiefly to points of forest-management of similar nature to those which I have already fully discussed in my replies to Mr. Clutton's Reports on mine, respecting Dean and the New Forests, and in my reply to Sir James Campbell's Report relative to the Forests of Bere and Parkhurst, I think it would be superfluous in me, as well as tedious for you, to enter again into the details of these; I propose, therefore, for the present to take up the subject of Alice Holt Forest very briefly, and to advert only to a few facts, relative to which I find Mr. Higinbothom has made gross mis-statements, and which affect the whole bearing of his Report, statements which are utterly at variance with truth, and which consequently must fall to be refuted before any point of opinion, or judgment, respecting management can be discussed fairly.

The mis-statements to which I refer have reference chiefly to the following points.

1st. As to the average number of trees on the acre in the several inclosures, and their average diameter.

2d. Regarding the drainage of the inclosures, generally.

3d. With regard to the extent of pine-nurses which have existed in the several inclosures.

1st. As to the average number of trees on the acre in the several inclosures, and their average diameter.

The following tabular statement will show, at a glance, the difference between Mr. Higinbothom's assertions and my own, respecting these.

INCLOSURES.	Average Number of Trees on the Acre, as taken from J. Brown's Report.	Average Diameter in Inches of these, at Six Feet from the Ground.	Average Number of Trees on the Acre, as taken from Mr. Higinbothom's Report.	Average Diameter in Inches of these, at Six Feet from the Ground.
Great Lodge - -	On first portion referred to, 160.	7	On first portion referred to, less than 100.	Fully 10
	On second portion, from 200 to 350.	5 ¼	On second portion, 127.	8
The Straights - -	180	8	Not 100	Fully 10
Goose Green - -	On first portion referred to, 180.	8	Not 100	10
	On second portion, from 160 to 250.	5	—	—
Abbot's Wood - -	From 160 to 260	6	100	9
Willow Green - -	- Ditto - -	6	100	9
Glenbervie - -	On first portion, 180.	7	100	8
	On second portion, 300.	5	100	8
Holt Pond - -	From 160 to 260	6	—	—

When I first read Mr. Higinbothom's Report, and compared his statements as to the number of trees on the acre, and their average diameter, with the results of my own observations, while in Alice Holt Forest in November 1852, I was at a loss how to account for

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for such contrariety of numbers and measurements respecting the same things. In matters of opinion, respecting the various branches of forest-management, men will, doubtless, be found to differ, but, in counting the number of trees on an acre of land, and in measuring their diameter at a given height from the ground, it is not conceivable that more than a very small difference should occur between the calculations of any two parties, provided both had the same object in view; namely, that of stating plain facts as they found them. Although I was perfectly conscious that I had, while in Alice Holt Forest in 1852, taken my observations, measurements, and calculations simply and solely with a view to the truth of the facts stated respecting the crop there, yet the discrepancies between Mr. Higinbothom's statements and my own were so startlingly great that, for the sake of truth, I felt constrained to solicit your permission, while in London last month, to re-visit Alice Holt Forest, in order that I might repeat, and, if necessary, revise my former observations and measurements. To this proposal, you at once kindly agreed, and sent Mr. J. R. Sowray, your accountant in the Office of Woods and Forests, along with me. Accompanied by that gentleman, I again visited the forest, where we remained two days (the 19th and 20th ultimo), and made fresh observations on the crop in the several inclosures; the results of these, I shall now lay before you, and they will, I have no doubt, at once set at rest the differences of assertion advanced.

The following tabular statement will show the results of these numberings and measurements, while, at the same time, it will also show the difference between those given in my former Report on these woods, and those stated by Mr. Higinbothom in his Report now under notice.

NAMES of INCLOSURES.	Counts and Measurements taken by R. Sowray and J. Brown, on the 19th and 20th January 1854.		Counts and Measurements stated by J. Brown, in Report of March, 1853.		Difference between these.		Counts and Measurements as stated in Mr. Higinbothom's Report.		Difference between Mr. Higinbothom's Statements, and those by J. Brown, in his Report of March 1853.	
	Number on the Acre.	Diameter in Inches.	Number on the Acre.	Diameter in Inches.	Number on the Acre.	Diameter in Inches.	Number on the Acre.	Diameter in Inches.	Number on the Acre.	Diameter in Inches.
Great Lodge - 1st	186	7	160	7	26	Nothing	100	10	60	3
Great Lodge - 2d	238	5 1/4	275	5 1/4	37	Nothing	127	8	148	2 3/4
The Straights -	186	7 1/2	180	8	6	1/2	100	10	80	2
Goose Green - -	164	7	180	8	16	1	100	10	80	2
Abbot's Wood -	240	6 1/2	210	6	30	1/2	100	9	110	3
Glenbervie - -	192	6 3/4	180	7	12	1/4	100	8	80	1

I may almost leave this Table to speak for itself, without lengthened comment on it; it indicates, with sufficient clearness, the falsity of every one of the assertions put forward by Mr. Higinbothom, as regards this class of facts, and shows an amount of discrepance in every instance between these assertions and the certified facts of the case, which I respectfully submit cannot possibly be assigned to mere error of calculation. As regards the differences between my former and my present calculations of the number of trees on the acre, I beg to state that it is considered by practical men that, if successive estimates of this kind correspond to within 15 per cent. of each other, this shows that they have been made with sufficient care and skill; for the obstacles in forming such an estimate, or rather in making such a calculation, are so numerous, that a nearer approximation than this can scarcely be certainly calculated on. The Table shows only in one instance an amount of discrepance between my former and present statement so large as this; while, between these certified results and the assertions of Mr. Higinbothom, the differences were from 60 to considerably above 100 per cent., an amount which I unhesitatingly assert is not conceivably attributable to error of calculation.

On the other hand, the measurement of average diameters is subject to fewer causes of error; and here my former calculations, and those now taken with the assistance of Mr. Sowray, still more nearly correspond. In two out of the six cases, the correspondence is exact; in one I have, in my first estimate, slightly under-rated the averages, and so far done Mr. Higinbothom injustice; in the other three, the results, as now certified, show that I had somewhat over-estimated the dimensions, and done him at least full justice. The diameters, however, asserted by him are not, as regards any one of the inclosures, approached by these certified averages; and here also I am compelled to say, that the differences, in one case alone so low as 15 per cent., and in all the others varying from 28 to above 50 per cent. in excess of the truth, seem to me too great to have occurred through mere inattention, or even careless measurement.

On this part of the subject, it seems quite unnecessary to enter into further detail, or to dwell at length on the individual cases of difference. Mr. Higinbothom's statements have either been made perfectly at random, and with the special purpose of misleading with regard to the state of the crop under his charge, or, with the same object in view, he has wilfully

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wilfully concealed, and perverted the truth. There is, however, only one point bearing on the extent of his mis-statement, as to the size of the trees, which the Table does not fully bring out, except to the practical forester, and to which I may briefly refer. In more than one case, for instance, trees certified to average seven inches in diameter, he asserts to measure 10, or fully 10: the difference in value between two trees of these relative dimensions is, to the unpractical reader, very unfairly represented by these numbers; for the larger of the two contains fully double the cubic contents of the smaller, and, from yielding timber of larger scantling, will bring nearly double the price.

Before dismissing this Table, and the relative statements summed up in it, I beg to say that, had the averages of trees per acre indeed been as Mr. Higinbothom represents, this would have proved an amount of mismanagement very far beyond all I have indicated; and I can only account for his reckless mis-statements, in this respect, by his desire to strengthen his argument as to the impossibility of the revenue I estimate being realized. It is necessary to the force of that argument, that the entire quantity of crop should appear as small as possible, and in his eagerness for this, Mr. Higinbothom has overlooked the charge to which he exposes himself, of having overthinned the woods under his care to an extent irreconcileable with any management whatever.

Another point, however, I must yet refer to, before altogether dismissing this branch of the subject, which is, that during my recent visit to them along with Mr. Sowray, we found that Mr. Higinbothom had, during the last barking-season, thinned portions of all the inclosures, except one, namely, Abbot's Wood. The foreman accompanied us through all the inclosures, and pointed out to us the different portions of these which had been thinned, and from which bark had been taken during the season of 1853; and I have in my possession a statement which I got from him, showing the quantity of bark taken from each inclosure. That these thinnings would necessarily affect some portions of the statements embodied in my Report, could not have escaped Mr. Higinbothom; why he should have made no reference whatever to them, in his observations, he is himself best able to explain.

2d. Regarding the drainage of the inclosures generally.

With reference to this point, I state in my Report, that "there are a good many damp "parts in the inclosures, which should all be dried by open drains; and, with a view to this, "I would recommend that drains be made along each side of all the roads, which will serve "the double purpose of acting as main drains, and of keeping the roads dry and in a tho- "roughly good state for the forest operations generally. Were drains thus cut along each "side of the roads, others could be made to run into them from such damp spots in the "body of the plantations as require to be dried," and that "I ought to remark here, that "there has been a partial drainage made on many parts of these plantations, but not suffi- "ciently to dry the land, and make it available for the maintenance of the crop in full health "and vigour."

Mr. Higinbothom, in adverting to these suggestions and remarks, states, "From the "tenor of Mr. Brown's observations on this" (Great Lodge Inclosure) "and other inclosures, "it might be inferred that the important operation of drainage had been entirely neglected, "and that it will be necessary to institute a system of thorough drainage over a great part "of the forest." And further, "There can be no question that the whole of the forest was "systematically and efficiently drained, at the time of forming the plantations, according to "the principles which were then considered to be the best adapted for the purpose, and "which could be but little improved upon at the present day. In proof that this is no asser- "tion, I beg leave to mention that there are, at the present moment, 339¾ miles of drains in "the forest, nearly the whole of which have been in existence since the several plantations "were made."

No unprejudiced man who would take up my Report on Alice Holt Forest, and read it, with a view to ascertain the true character of the inclosures in respect to drainage, would state, as Mr. Higinbothom has done, that "it might be inferred" (from my Report) "that "the important operation of drainage had been entirely neglected;" for I have distinctly stated, that "there has been a partial drainage made on many parts of these plantations, "but not sufficiently to dry the land, and make it available for the maintenance of the crop "in full health and vigour." These words seem to me sufficiently plain; and if, after read- ing them, Mr. Higinbothom can draw the inference he does from my Report, as to my conceiving drainage to have been entirely neglected, I do not know what words would have been sufficient to rid him of his prepossessions on the subject.

The true condition of the inclosures in Alice Holt Forest, in respect to drainage, is explained in my statement that "there has been a partial drainage made on many parts of "these plantations, but not sufficiently to dry the land, and make it available for the main- "tenance of the crop in full health and vigour." Suppose I had written a volume on the subject, I could not have given you a clearer idea of the true nature of the drainage in the forest, now under consideration, than is expressed in these few words. There may be the extent of open cuts mentioned by Mr. Higinbothom (what he considers drains) in the inclo- sures of the forest, but I maintain that, notwithstanding these, a very great portion of the land is excessively damp, and that the existing drainage is partial, and powerless to dry the land to such an extent as "to make it available for the maintenance of the crop in full health "and vigour." Although there are, generally speaking, open cuts along the sides of the principal roads leading through the inclosures, with others diverging from them into the body of the plantations, these are, generally speaking, badly laid on, shallow, without sufficient fall, and consequently mere receptacles for retaining stagnant water; while, along the sides of the branch or connecting roads, there are generally no drains at all; and these

are,

are, consequently, almost impassable to a foot-passenger in the winter-season. This latter fact was fully experienced by both Mr. Sowray and myself, while in the forest last month; for, on many places, we had considerable difficulty in making our way along the roads, in consequence of the excessively damp state they were in, from want of the system of drainage which I have suggested; and we found the greater part of the drains half full of stagnant water.

To show, however, that the existing drainage is comparatively worthless, so far as the healthy maintenance of the crop is concerned, I may remark that, on the greater part of the land in all the inclosures, the common rushes and strong rough grasses are found growing in their native luxuriance, proving that these plants are in a condition of soil excellently adapted to their half-aquatic nature.

Notwithstanding these plain facts, which would be conclusive to every unprejudiced practical man, Mr. Higinbothom asserts, "There can be no question that the whole of the forest "was systematically and efficiently drained at the time of forming the plantations, according "to the principles which were then considered to be the best adapted for the purpose, and "which could be but little improved upon at the present day." Such statements require no comment; an impartial examination of the forest would at once point out the truth of my statements, and the fallacy of Mr. Higinbothom's, in respect to the existing drainage there. Mr. Higinbothom appears to hold peculiar views on the subject of drainage, and to be of opinion that oaks and rushes can luxuriate together; an opinion in which, I fear, he will get no rational man to agree with him.

Before quitting the subject of drainage, I must shortly advert to one other point in connexion with it, which should be well weighed by Government, viz., the influence which attention to, or neglect of, such a system of drainage as I have recommended must have on the prospective value of all their woodlands. In my Report on Alice Holt Forest, bearing date the 31st March 1853, I distinctly state that, "In addition to the neglect of timely thin-"ning, drainage also has been neglected in the past management of these woods. This "forms another cause of the comparative inferiority of the crop on a considerable extent; "for, had the important work of drainage been attended to, at least wherever wetness "appeared, the trees in these plantations would have been generally more healthy than they "now are." I again fearlessly maintain that drainage has been neglected in the past management of these woods, and that, in consequence, the health and value of the crop has been much impaired. These remarks, it is true, refer only to the past management; but what I wish strongly to impress on Government is, the fact that if the drainage of these woods shall still be neglected, their crop will inevitably attain only a comparatively small value, and will not be productive of the income which I have anticipated. When in Alice Holt Forest, last month, I was fully confirmed as regards a point which I had previously anticipated, namely, that from the neglect of adequate drainage, the trees would be found to have made comparatively little progress. This I found was unequivocally the case; and, in respect to drainage, therefore, I beg again to urge that it is absolutely necessary it should be proceeded with, without delay; for if it should not, a great part of the crop will be certain to become prematurely ripe, and consequently be productive of only a comparatively small revenue. When I made up my estimates as to the income to be derived from these forests, it was with the understanding that all my suggestions were to be put into operation immediately. This has not yet been done, and the consequence is, that the crop is generally not progressing according to my views. If delayed longer, the loss to the Crown will be very serious.

3d. With regard to the extent of pine-nurses, which had existed in the several inclosures.

In reference to this point, I state in my Report, that "it is very evident, from the gene-"rally drawn-up character of the oak-trees which now constitute the chief body of the crop, "that they have, till within a period of eight or ten years past, existed in an extremely con-"fined state among their nurses, and that their full development has been much hindered, in "consequence." In adverting to this statement, Mr. Higinbothom says,

"I am sure that you will be equally surprised with myself at the extraordinary misappre-"hension into which Mr. Brown has fallen, when I assure you that no nurses were ever "planted upon about 1,500 acres, out of the whole extent of Alice Holt Forest. Upon the "portion where nurses did actually exist, I think it right to state that, so far from the oaks "having been confined among them until within the last eight or ten years, as stated by Mr. "Brown, there has not been a single nurse left in the forest for 13 years; and, further, that "these nurses never were allowed to remain to the injury of the oaks."

After the extraordinary assertions which Mr. Higinbothom has ventured to put forward, in respect to the number of trees on the acre of the inclosures, and their average size, I am prepared for, and not in the least surprised to find him making statements equally false and erroneous regarding the nurses which had existed among the oaks in these plantations. In giving you his assurance that "no nurses were ever planted upon about 1,500 acres out of "the whole extent of Alice Holt Forest," Mr. Higinbotham only gives assurance of his own insincerity, and shows that no dependence can be placed on any statement he may please to advance, for there is even still a small remainder of pine-nurses in the greater number of the inclosures. I conceive it is indisputable that, if they had not been planted, they could not be found there at the present time.

While I was in the forest, in November 1852, I observed many nurses remaining (much more than are now) among the oaks; and I was then informed by the foreman, in the presence of Mr. Higinbothom, that, eight or ten years ago, there were a considerable quantity

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of these in all the inclosures, but that they had, since that time, been almost all removed, in order to give the oaks room; and this fact Mr. Higinbothom did not then deny, but assented to it. Still further, while in these woods last month, along with Mr. Sowray, I again asked the foreman, who accompanied us in our survey, regarding the extent of nurses which had at one time existed in the inclosures, when he said that "in Glenbervie Inclosure, the nurses were at "one time so plenty that they had very nearly got the better of the oaks, and that there was "a struggle which would have the mastery; and that the former were thinned away only in "time to prevent the spoiling of the latter;" and, in answer to another question on this subject, he said that "there was a number of these planted in all the inclosures, but not "nearly to the same extent as in Glenbervie Inclosure."

These statements of the foreman's clearly prove the fallacy of Mr. Higinbothom's assertion, "that no nurses were ever planted upon about 1,500 acres, out of the whole extent of "Alice Holt Forest;" and I am the more confident of this, from my own observations as to the generally drawn-up and weakly character of the oak-crop.

Mr. Higinbothom further states, that "there has not been a single nurse left in the forest "for 13 years." I am compelled to state that this assertion amounts to a direct falsehood; for in looking over these woods last month, I saw, and pointed out to Mr. Sowray on the spot, a few nurses growing in the greater number of the inclosures; in Glenbervie Inclosure, we saw a considerable quantity lying felled along the sides of the roads; thus proving, that many have been cut of late, that many are still growing, and that, at one time, these had existed to a very considerable extent. In short, it is admitted by the foreman, whom I take to be a plain matter-of-fact man, that in Glenbervie Inclosure there was at one time a struggle for the mastery between the oaks and their nurses; and yet, when I last inspected that inclosure, I did not find a greater number of nurses remaining in it than are still to be found in some of the other inclosures, in which Mr. Higinbothom has assured you there never were any planted at all. These plain facts I leave without comment to your consideration. To Mr. Higinbothom's assertions that, on the greater part of these plantations, no nurses were ever planted at all, and that from them every nurse has been removed 13 years ago, I oppose not only the direct and specific testimony of his own subordinate, but the still more unequivocal witness of nurses standing to this day in all the inclosures.

The whole of Mr. Higinbothom's essential objections to my Report, and to the recommendations embodied in it, are grounded on the three classes of assertions I have thus successively examined; those relating to the number of trees per acre, and their average size, those regarding the efficiency of the drainage, and those in connexion with the existence, or non-existence, of nurses in the several inclosures. As the simple facts I have brought forward are, I trust, sufficient to satisfy you that his assertions on all these points are utterly false, it would be a mere waste of time to refute objections which must fall to the ground with the alleged facts on which they are based; and I think it, therefore, unnecessary to enter into further detail in regard to these objections. Should it, however, be desired that his Report should receive a more lengthened examination, I shall, at any time you may be pleased to call on me, resume the subject; probably enough has already been said, to show that all Mr. Higinbothom's arguments and opinions may be very easily and summarily dealt with.

I have, &c.
(signed) *James Brown.*

The Right Hon. T. F. Kennedy.

No. 21.

My Lords, Office of Woods, &c., 14 February, 1854.

I BEG leave to acquaint your Lordships, that I yesterday received a Report from Mr. Brown, dated the 10th, in reply to Mr. Higinbothom's Report of the 29th of December last, on the subject of Alice Holt Forest, and I lose no time in transmitting herewith a copy, for your Lordships' information; I also beg leave to acquaint your Lordships that, by the post of this day, I shall transmit a copy of the Report to Mr. Higinbothom.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Honourable the
Lords Commissioners of Her Majesty's Treasury.

No. 22.

Sir, Office of Woods, &c., 14 February, 1854.

I AM commanded by the Commissioner in charge of Her Majesty's Woods and Forests, to transmit to you a copy of a Report, dated the 10th of February, which reached this office yesterday, from Mr. Brown, on the subject of your Report of the 29th of December, and no time has been lost beyond what was necessary for a copy being made.

I am, &c.
(signed) *G. S. Bedford.*

N. Higinbothom, Esq.

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No. 23.

Sir, Holt Lodge, 14 February, 1854.

I HAVE to acknowledge the receipt of Mr. Bedford's letter of the 9th instant, requesting me to forward an explanation, in a distinct and separate Report, upon the subject of the serious and most unfounded charges brought against me, in your Report to the Lords of the Treasury, dated the 26th ult., of which Report a copy had already been forwarded to me, by desire of their Lordships. I certainly should have preferred, before furnishing you with the required explanations, to have had before me a copy of the further Report which, I have been given to understand, Mr. Brown is about to make on the forests under my charge, as it seemed to me reasonable that I should be placed in possession of the whole of the observations to which that Report had given rise, at the same time. But, as you state that my remarks upon the statements, which you have submitted to the Lords of the Treasury, shall be embodied in a separate and distinct Report, I hasten to comply with your directions, and furnish at once the required explanations, without waiting for a perusal of the documents which, you inform me, Mr. Brown has now in course of preparation.

I cannot refrain from again expressing my deep regret that, before submitting to their Lordships your Report of the 26th ult., in which my conduct is characterized in terms that clearly and distinctly imply that you had the actual proofs in your possession of my having been guilty of the daring imposture and deception with which you charge me, you had not communicated your doubts to me, or made further inquiries on the subject. After devoting my best energies in the employment of the Crown, for upwards of 16 years, I entertained the confident expectation that my statements were as much entitled to credence as those of Mr. Brown; and I, therefore, regret the more that, under entire misapprehension, and without making full inquiries, you should have considered yourself justified in drawing the harshest conclusions against me, when the correctness of the statements which you have questioned, could have been ascertained in a few hours, by an inspection of the several inclosures in the forest by any impartial person accustomed to the management of woodlands. That the statements of which you have impugned the accuracy in such strong language are correct, that there has been no suppression of any facts bearing on the case, nor attempt, on my part, to impose upon you, I will now furnish conclusive proof; and, as you have informed the Lords of the Treasury that "it is no longer possible to place the slightest reliance on any state-"ment" which I make, the accuracy of the facts which you have alleged to be "the reverse "of facts" will be proved, not by me alone, but by the solemn declarations of the several woodmen, supported by the certificates of three gentlemen of the highest reputation in the counties of Surrey and Hants, as agriculturists and managers of woodlands.

It is stated, in your Report to the Lords of the Treasury, that Mr. Brown visited the forest in November 1852, and that his Report treats of the forest as it existed at that period; and further, that as my observations in reply to that Report are made between the 20th October and the 29th December 1853, the "state of the facts," as represented by me, "must be taken to be and are" as they existed in November 1853, being 12 months after the date of Mr. Brown's visit. You then proceed in great detail to represent, that in my observations upon the several inclosures, I have charged Mr. Brown, in several places, with inaccuracy in having estimated the number of trees per acre at a much larger number than is actually the case; and you argue that, as Mr. Brown's estimate was made in November 1852, and mine in November 1853, and as a large quantity of the thinnings were taken out of the several inclosures, in the interim, it must follow that the difference between our several statements is easily to be accounted for, by the fact of such thinnings having been taken out in the interval between the periods when these two estimates were made. And you charge me with suppressing the fact of the change which has necessarily been made in the number of trees upon the acre, with the intention, as you state, of imposing upon you, and of blasting the reputation of Mr. Brown. Such, in brief, is the charge against me; and, without pausing to comment upon your statement, that "in this case, the intrinsic evidence of circum-"stances, which do not admit of contradiction, renders further evidence superfluous," I have the honour to state, that the conclusions which you have drawn, are not only erroneous in themselves, but are founded on an entire misapprehension of the facts of the case, in consequence of your having proceeded to deal with the subject, without having previously been in the possession of correct information as to the mode adopted in thinning the plantations in Holt Forest.

You are evidently under the impression that because, in the course of a season, a quantity of thinnings are taken out of different inclosures, varying in extent from 200 to 380 acres, and in which the trees are of several ages, from 20 to 40 years, it must necessarily follow that the whole of each of those inclosures has undergone the process of thinning; that is to say, that trees have been taken out in every portion, entirely irrespective of the ages, or growth, of the trees in such different portions.

So far from this being the case, it is the fact that different parts of some of the inclosures are thinned in different years; and it often occurs, therefore, that in an inclosure of 200 or 300 acres, a portion containing 50, 100, or 150 acres, may be thinned out in one season, without a single tree being taken from the residue; and it follows, as a matter of course, that, if no trees are removed from a specified part of an inclosure in the season of 1853, there will be found the same number of trees there in the November of that year, as there were in the November preceding.

Of the existence of this practice, you seem to have been unaware, otherwise your charges would not, I think, have been made without further inquiry; and your arguments, therefore, are

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are based on a misconception of the bearing of the facts which you have adduced as proofs of the charges against me. And I shall now proceed to show that, notwithstanding that thinnings have been taken out of some of these inclosures in the season of 1853, the statements made by me, of the average number of trees to the acre, are applicable to the state of the forest in November 1852, in precisely the same manner as to its condition in 1853; and I venture, therefore, to submit, as a necessary result, that, so far from my having "suppressed the fact" of the thinning having taken place, it would have been a work of supererogation on my part to have mentioned such thinnings, because it in no degree affected the accuracy of my statements.

I will now proceed to reply to your remarks on each of the inclosures.

Great Lodge.

Mr. Brown's statement is as follows: "A portion of this inclosure, situated on the north "and west sides of the lodge, to the extent of about 150 acres, is under oak of 40 years of "age; the crop here has been much overthinned of late, there being only on an average "160 trees on the acre, while there ought to be 200; and from measurements, I found these "to have a medium diameter of seven inches at six feet from the ground."

To this assertion, my reply was to the effect that there were less than 100 trees to the acre whose average diameter exceeded 10 inches, instead of 7 inches.

Upon these opposite statements, you have remarked that Mr. Brown's assertion applies to the state of the inclosure in November 1852, and my contradiction to November 1853, and that, as 77 tons of bark were taken from the inclosure, in the interval between those dates, a large number of small trees must have been felled, amply sufficient to account for the whole difference between the two statements. In this assertion, you appear to have overlooked the fact that this inclosure contains 389 acres; and that it was quite possible that the quantity of bark and thinnings referred to, might have been taken from the other portions of that inclosure of younger growth than that now under consideration. Such, however, was the case, as, with the exception of a small parcel called the Eight Acre Piece (which was never even seen by Mr. Brown), no thinnings have been taken out, since November 1852, of the part of the inclosure referred to by him as being situated on the north and west sides of the lodge, and under oak of 40 years of age; and I repeat that, including this Eight Acre Piece, there were not, upon an average, 100 trees to the acre on this part of the plantation, at the time of Mr. Brown's visit in November 1852, although he states that there were 160.

As you have informed the Lords of the Treasury that my contradiction of Mr. Brown's estimate is "at once utterly discredited and set aside" by the fact of a thinning having been effected in the inclosure; and further, that "it is no longer possible to place the "slightest reliance on any statement" which I make, I have the honour to refer you to the enclosed declaration by William Liming, the woodman of this inclosure, as to the accuracy of the facts which you have treated as unworthy of belief; and deposing that, with the exception of the Eight Acre Piece, there are precisely the same number of trees in this part of the plantation, at the present moment, as there were in November 1852; and that even including the Eight Acre Piece, there were not 100 trees to the acre, at that date. You will also be good enough to observe, on a perusal of that document, that three gentlemen of high repute in the counties of Surrey and Hants, as timber-growers and managers of plantations, videlicet, Sir Archibald Keppel Macdonald, bart., John M. Paine, esq., Farnham, and Murray Marshall, esq., Godalming, timber-merchant, have inspected the plantation, and, by a close examination of the stools of the felled trees, have satisfied themselves that no trees have been taken out in any of the portions of this inclosure of 40 years of age, but the piece above referred to as the "Eight Acres," since November 1852, and have endorsed upon the back of the declaration a certificate that they believed the statements of the woodman to be strictly correct.

From this document, you will perceive, therefore, that your charge of my having "suppressed the fact" of a thinning having taken place, in some parts of this plantation, falls entirely to the ground, for the simple reason that the omission to mention a circumstance, which has no bearing on the point at issue, cannot be called a "suppression."

You then proceed to inform their Lordships that, if my statement be true, that there are less than an average of 100 trees on the acre, you consider that I have gone far to ruin the plantations. On what grounds you have arrived at this conclusion, I am unable to form an opinion; but I venture, with great respect, to point out to you that Mr. Brown has expressed a very different opinion, as regards the trees of the same age in some of the other plantations, on a soil of much the same character as in Great Lodge. In his remarks upon the Straights Inclosure, he states, in his Report of the 12th March 1853, that the trees of 40 years of age are of a "promising, healthy character." In Goose Green, he speaks of "a "very promising crop of oak," about 40 years of "age." In these inclosures, at the time of Mr. Brown's visit in 1852, there were less than 100 trees to the acre, as I ascertained by most careful enumeration and measurement, not of small plots of a quarter of an acre, but of several separate parcels, each of an acre in extent; and if, in soil of the same description as the soil of Great Lodge Inclosure, the crop is in a "promising" condition, where there are less than 100 trees to the acre, I think you cannot fail to perceive that it at least admits of a doubt whether the portion of Great Lodge Inclosure, under oak of 40 years of age, is ruined

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ruined because there are less than that number of trees to the acre. Indeed, I entertain a very different opinion myself, and am strengthened in my views by all the growers of timber in the south of England, whom I have consulted on the subject.

Your next charge is to the effect that, in order to contradict Mr. Brown's statement that the diameter of these trees averages seven inches, I have caused the measurements to be taken in places where large numbers of the smaller trees have been removed, by which means the average diameter of those which remain is of course largely increased; and you proceed to inform their Lordships, that my statement that the diameter is 10 inches, is "deceptive, fraudulent, and untrue."

In reply to this charge, I have merely to remind you that, by the woodman's declaration, t is proved that the "Eight Acre Piece" was the only portion of this section of the inclosure thinned since November 1852; and, if you will turn to that document, you will observe that, in the concluding paragraph, the woodman expressly states that the measurements of the diameters were taken in places where the trees had not been thinned since that time; and I may add, that the gentlemen whose certificates are attached to his declaration, before attaching those certificates, measured a large number of trees, and satisfied themselves that the average diameter, as given to me by the woodman at "above ten inches," was correct. I trust, therefore, that you will feel satisfied that you had been under a misapprehension, on this point, as well as on those to which I have already referred.

Your next remark is, that mine is not a fair statement of these measurements, because, "while Mr. Brown estimates the diameter of the trees by taking the average diameter of a "large number," I speak of trees, "fairly selected as average specimens," and you add, that "there is a material difference between specimens selected, and an average size actually "taken from a large number." On this point, I have merely to state, that I never made use of the expression alluded to, and that my measurements were taken in precisely the same way as those taken by Mr. Brown.

If you will have the goodness to refer to my remarks upon this inclosure, you will observe, that I do not speak of "several trees fairly selected as average specimens," but that "I have ascertained from actual enumeration and measurement of the trees upon several acres, fairly selected as average specimens of the growth of the plantation, that there are less than 100 trees per acre; and that their medium diameter rather exceeds 10 inches, instead of seven inches."

On a perusal of this extract, you will at once perceive, from the context, that several acres were selected as specimens, because, if separate trees had only been selected, it would have been impossible for me to have given the enumeration of the number of trees to the acre.

Straight's Inclosure.

Your charge against me here is precisely of the same description, and I have only to refer you to the enclosed declaration of James Spier, the woodman of this inclosure, from which you will perceive, that no trees have been taken out, since November 1852, from the portion of this inclosure where Mr. Brown states that there are 180 trees to the acre, and I state that there are not 100.

You will perceive, from this declaration, which is certified by the gentlemen already alluded to, that, so far from my contradiction being "valueless," as you inform their Lordships, it remains in full force; that it is not "a statement of a different fact under circumstances "wholly changed," and that the fact of there having been a thinning of part of this inclosure, in May 1853, has not been "boldly kept out of view," but that it was necessarily omitted by me for the simple reason that it had not the slightest bearing on the point at issue.

Goose Green Inclosure.

The charge against me is precisely the same; and I beg, therefore, to refer you to the enclosed declaration of James Spier, the woodman of this inclosure, from which you will observe, that no trees have been taken out, since November 1852, from the 42 acres, where Mr. Brown asserts there are 180 trees to the acre, but where I state there are not 100.

The renewed charge of "suppression of the fact of thinning," falls, therefore, to the ground.

Abbot's Wood Inclosure.

You state that, in my remarks upon this inclosure, I assert that there are about 100 trees to the acre, over the whole inclosure; whereas, Mr. Brown states that, on a considerable extent, there are about 160, and, on the other portions, about 260 on the acre.

On this point, I beg to remind you that, in my Report of the 29th of December last, the remarks made on each of the inclosures in Mr. Brown's Report of the 12th March 1853, are copied on the left-hand side of the page, and that each of my observations is written opposite the particular remark of Mr. Brown's to which it is intended to be the reply. On referring to the draft of my Report of the 29th December, I find that my statement that "I find about 100 on the 'acre,' was written exactly opposite to Mr. Brown's assertion that "'on a considerable extent, there are about 160 trees to the acre.'" Whether this is so in the fair copy, I have now no recollection, though I believe that such was the case; but I beg to state most distinctly, that it was intended solely to refer to that particular assertion of Mr. Brown's, and that I could not possibly have had any other intention, for the sole reason, that where the trees in this inclosure were measured and enumerated, in order to enable me to

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to test the accuracy of Mr. Brown's figures, I found in some places 500 trees to the acre, and that I made a memorandum to that effect in the draft of my Report.

There have been no thinnings in this inclosure since November 1852, as will be seen by the enclosed declaration of the woodman, Thomas Spreadborough.

Willow Green Inclosure.

There being no charges made against me, in regard to this inclosure, no reply is necessary.

Glenbervie Inclosure.

You inform the Lords of the Treasury that my statements become more startling, as I proceed; and that, if I have reduced the number of trees to 100 per acre, you would say that I have ruined a plantation of this age. On this point, I beg to observe that, in my draft Report, the statement that "I find about 100 trees to the acre, with a diameter of eight "inches," was written against Mr. Brown's assertion that "where the land is a good loam and "dry they (the trees) average 180 per acre;" precisely in the same manner as each of my other replies was written opposite to the remark to which it has reference. Whether my observation was written precisely in the same place, in the fair copy of the Report in your possession, I have now no means of knowing, although I believe such was the case; but I can at once state most distinctly, that it was not intended to refer to the trees on the land of inferior character, which Mr. Brown estimates at nearly 300 to the acre, with an average diameter of five inches, and where I had previously ascertained that there are more than that number.

In reply to your remark, that I have suppressed the fact that the inclosure was thinned in 1853, I have the honour to state that there was no suppression of the kind; and that, in stating the number of trees on the places where the "land is a good loam and dry" at about 100 per acre, I left a margin for the thinnings, which had been taken from about 12 or 14 acres, out of the portion of the inclosure of that description of soil. In corroboration of this tatement, I beg to refer you to the enclosed declaration of the woodman of this inclosure, John Broomfield, in which he states, that there were about 100 trees to the acre on this land, at the time of Mr. Brown's visit in November, 1852; and further, that the measurements taken by him of the diameter of the trees were not taken in any places where the trees had been thinned since that time.

This declaration is certified in the same manner as those already mentioned; and you will observe, from its perusal, that you are again under a misapprehension in supposing that there has been any "suppression of the facts."

Holt Pound Inclosure.

You inform their Lordships that no mention is made by me that about 19 tons of bark have been taken from this inclosure in 1853; but, as no question has arisen between Mr. Brown and myself on any points which could be elucidated by the fact of this thinning being mentioned, I confess that I am at a loss to know why it is represented to their Lordships that I make "no mention of the fact."

In concluding my remarks upon each of the inclosures, I beg to observe, that the thinnings, taken out in the year 1853, were removed (with the two trifling exceptions which I have mentioned) from those portions of the several inclosures, where I have not questioned the accuracy of Mr. Brown's estimates of the number of trees to the acre. I think it right to add, that those estimates were not permitted to pass unquestioned, because I believe them to be accurate, but merely because extensive thinnings had been made in the particular spots to which they referred; and I purposely refrained, therefore, from showing their general inaccuracy (of which I had ample proof), because, I had already shown so repeatedly the inaccuracy of Mr. Brown's statements of the number of trees to the acre, in places where there had been no thinnings since the date of his visit, that I thought it unnecessary to enter upon the same question, in places where thinnings had taken place.

I have now, at considerable length, noticed every point in your Report to the Lords of the Treasury, and have completed the performance of the painful duty imposed upon me, by their desire, of defending my character against such grave and unexpected charges. Disagreeable as such a task is, under any circumstances, it is still more so, when it is evident that the charges are founded on an entire misapprehension, which would at once have been cleared up, if further inquiries had been made on the subject.

Permit me to remark, that you informed their Lordships that you were dealing with my Report, irrespective of all statements which might be made by Mr. Brown, because you considered that, if you failed to do so, it would appear that you had no opinion of your own on the subject, and that you leant on Mr. Brown, and were yourself incompetent from knowledge, or judgment, to deal with the matters brought forward by me; and further, that without the assistance of others, you were open to be the dupe of every species of imposture. In adverting to these remarks, permit me to express my regret that, before representing me to the Lords of the Treasury as guilty of the fraud and deception to which you allude, you did not wait for the further report upon which Mr. Brown is now engaged.

Mr. Brown, accompanied by Mr. Sowray, the examiner of forest-accounts in the Office of Woods, &c., visited Holt Forest on the 19th and 20th ultimo, being about a week before your Report, of the 26th of that month, was forwarded to their Lordships. He brought to me an official letter, requesting me to place the services of the foreman at his disposal, which I accordingly

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accordingly did; he declined, however, my services in his inspection, and I am not precisely aware, therefore, of the points to which his attention was directed. He had it in his power, however, to make such an examination of the plantations as would have enabled him (in the same manner as the three gentlemen, whose certificates are appended to the woodmen's declarations, have been able to certify the statements contained therein) to ascertain the correctness of the several statements of which the truth has been so severely impugned, but has now been proved beyond question.

If he made such an examination, it is a matter of extreme regret that he did not communicate with you on the subject, and thereby have prevented the issue of a document, the perusal of which has caused me as much pain, as I feel sure the fact of its ever having been written will cause you, when you have ascertained from the enclosed declarations and certificates, the unimpeachable accuracy of the statements of which the truth has been questioned in your Report to their Lordships.

I presume that your Report, of the 26th ultimo, will necessarily form a portion of the return, which I am informed is called for in the House of Commons of certain correspondence relative to the Royal Forests, and I trust that, in forwarding a copy of this communication to the Treasury, you will convey my request to their Lordships, that this Report may be laid before Parliament at the same time with the Report of the 26th ultimo, to which it is a reply.

There is one point on which I have yet to advert, viz., your statement that I have endeavoured to blast the reputation of Mr. Brown. I can only assure you, that the character of that gentleman is a matter of perfect indifference to me. If the particular statements of which you have impugned the truth, and which are now proved to be facts, or any other statements in my Report, have blackened his character, permit me to remind you that the result, however unfavourable it may be to Mr. Brown, is entirely attributable to his own conduct, in having preferred charges, which were at once disproved; and not to me, for having, in the performance of a duty which you imposed upon me, exposed the inaccuracy of his statements, the fallacy of his estimates, and the utter destruction which an adherence to his recommendations would entail upon one of the most valuable possessions of the Crown.

In conclusion, permit me most respectfully to remind you that, among the injurious expressions which you have officially placed upon record in your Report to the Lords of the Treasury (which document, I may add, you have requested may be printed), the terms "deceptive," "fraudulent and untrue," "unscrupulous," and "the reverse of facts," have been applied to statements which I have proved to be perfectly accurate. You have also made a distinct intimation to their Lordships, that "it is no longer possible to place the slightest reliance on any statement" which I make; that I have been guilty of a "suppression "of facts," and that I have made a "daring attempt to impose" upon you. These statements, you will allow me to observe, were submitted to their Lordships without my being afforded any opportunity for explanation on any points on which you might have misapprehended my former Report.

I have to add, that I must request you to convey to the Lords of the Treasury an expression of my deep gratitude for having afforded me the present opportunity of refuting the charges which have been brought against me, charges which I must now respectfully request that you will withdraw.

I have, &c.

The Right Hon. T. F. Kennedy. (signed) *N. Higinbothom.*

Enclosure No. 1.

I, William Liming, of Holt Pound Gate, in the county of Hants, do solemnly and sincerely declare that, being the woodman in charge of Great Lodge Inclosure, in the Forest of Alice Holt, I have read the part of Mr. Brown's Report of the 12th of March 1853, in which he refers to this inclosure in the following terms: "A portion of this inclosure, situated "on the north and west sides of the lodge, to the extent of about 150 acres, is under oak of "40 years of age; the crop here has been much overthinned of late, there being only, on "an average, 160 trees on the acre, while there ought to be 200:" and I further declare that, with the exception of the Eight Acre Piece, the portion of this inclosure referred to above, being under oak of 40 years of age, has not been thinned out since the date of his visit to the forest in November 1852; and that there are precisely the same number of trees in this portion of the inclosure as there were at the date of that visit, except upon the Eight Acre Piece, which parcel was never seen by Mr. Brown, at that time: and I do further declare, that I have ascertained, by actual enumeration and measurement, that there were not, upon an average, 100 trees to the acre, at the time of that visit, on the part of the inclosure above referred to, including the eight acres, which have since been thinned; and further, that the measurements taken by me of the diameter of the trees, were taken in places where the trees have not been thinned since November 1852: and I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of an Act made and passed in the sixth year of the reign of his late Majesty King William the Fourth, intituled, "An Act to repeal an Act of the present Session of Parliament, intituled, An Act for the more "effectual abolition of Oaths and Affirmations taken and made in various departments "of the State, and to substitute Declarations, in lieu thereof, and for the more entire sup-

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" pression of voluntary and extra-judicial Oaths and Affidavits, and to make other provisions " for the abolition of unnecessary Oaths."

(signed) *William Liming.*

Declared by the within-named William Liming, at Bentley, in the county of Southampton, this 10th day of February, 1854,

Before me,

(signed) *F. R. Thresher,*
J. P. for the County of Southampton.

Alice Holt Forest, 11 February, 1854.

We, the undersigned, having personally examined the plantation referred to in this declaration, believe the same to be strictly correct.

(signed) *Archibald Keppel Macdonald,*
Woolmer Lodge, Liphook, Hants.
John Manwaring Paine,
Farnham, Surrey.
Murray Marshall,
Godalming, Surrey.

Enclosure No. 2.

I, James Spier, of Old Close Lodge, in the county of Hants, do solemnly and sincerely declare that, being the woodman in charge of the Straights Inclosure, of the Forest of Alice Holt, I have read that part of Mr. Brown's Report of the 12th March, 1853, in which he states, with reference to this inclosure, that " in the neighbourhood of the Woodman's " Lodge, there are about 130 acres of the land comparatively dry; here there are 180 trees " on the acre, 40 years of age, with an average diameter of eight inches, at six feet from " the ground, and of a promising, healthy character:" and I further declare that this portion of the inclosure in the neighbourhood of the Woodman's Lodge, where the trees are 40 years of age, has not been thinned since the date of his visit in November 1852, and that there are precisely the same number of trees in this place, at the present moment, as there were at the date of that visit: and I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of an Act made and passed in the sixth year of the reign of his late Majesty King William the Fourth, intituled, " An " Act to repeal an Act of the present Session of Parliament, intituled, An Act for the " more effectual abolition of Oaths and Affirmations taken and made in various departments " of the State, and to substitute Declarations, in lieu thereof, and for the more entire sup- " pression of voluntary and extra-judicial Oaths and Affidavits, and to make other provisions " for the abolition of unnecessary Oaths."

(signed) *James Spier.*

Declared by the above-named James Spier, at Bentley, in the county of Southampton, this 10th day of February, 1854,

Before me,

(signed) *F. R. Thresher,*
J. P. for the County of Southampton.

Alice Holt Forest, 11 February, 1854.

We, the undersigned, having personally examined the plantation referred to in this declaration, believe the same to be strictly correct.

(signed) *Archibald Keppel Macdonald,*
Woolmer Lodge, Liphook, Hants.
John Manwaring Paine,
Farnham, Surrey.
Murray Marshall,
Godalming, Surrey.

Enclosure No. 3.

I, James Spier, of Old Close Lodge, in the county of Hants, do solemnly and sincerely declare that, being the woodman in charge of Goose Green Inclosure, in the Forest of Alice Holt, I have read that part of Mr. Brown's Report of the 12th March, 1853, in which he states as follows: "That portion of this inclosure which on the plan of the forest is marked " as the 'Freehold of the Crown,' and which extends to 42 acres 1 perch, is under a very " promising crop of oak, about 40 years of age; there are 180 trees on the acre, and these " have

"have an average diameter of eight inches, six feet from the ground:" and I further declare, that the portion of this inclosure called "The Freehold Land," containing 42 acres 1 perch, has not been thinned since the date of Mr. Brown's visit, in November 1852, and that there are precisely the same number of trees on this land at the present moment as there were at the date of that visit: and I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of an Act made and passed in the sixth year of the reign of his late Majesty King William the Fourth, intituled, "An Act to repeal an "Act of the present Session of Parliament, intituled, An Act for the more effectual abolition "of Oaths and Affirmations taken and made in various departments of the State, and to "substitute Declarations, in lieu thereof, and for the more entire suppression of voluntary "and extra-judicial Oaths and Affidavits, and to make other provisions for the abolition of "unnecessary Oaths."

(signed) *James Spier.*

Declared by the above-named James Spier, at Bentley, in the county of Southampton, this 10th day of February, 1854,

Before me,

(signed) *F. R. Thresher,*
J. P. for the County of Southampton.

Alice Holt Forest, 11 February, 1854.

We, the undersigned, having personally examined the plantation referred to, in the annexed declaration, believe the same to be strictly correct.

(signed) *Archibald Keppel Macdonald,*
Woolmer Lodge, Liphook, Hants.

John Manwaring Paine,
Farnham, Surrey.

Murray Marshall,
Godalming, Surrey.

Enclosure No. 4.

I, Thomas Spreadborough, of Abbot's Wood Cottage, in the county of Hants, do solemnly and sincerely declare, that I am the woodman in charge of Abbot's Wood Inclosure, in the Forest of Alice Holt, and that I have had read to me by the magistrate before whom I make this solemn declaration, that portion of Mr. Brown's Report, dated 12th March, 1853, which has reference to the inclosure under my charge: and I further declare, that no portion of this inclosure has been thinned since the date of Mr. Brown's visit to the forest, in November 1852, and that there are precisely the same number of trees in this inclosure at the present moment as there were at the date of that visit: and I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of an Act made and passed in the sixth year of the reign of his late Majesty King William the Fourth, intituled, "An Act to repeal an Act of the present Session of Parliament, intituled, An Act for the more effectual abolition of Oaths and Affirmations taken "and made in various departments of the State, and to substitute Declarations, in lieu "thereof, and for the more entire suppression of voluntary and extra-judicial Oaths and "Affidavits, and to make other provisions for the abolition of unnecessary Oaths."

The mark of
+
Thomas Spreadborough.

Declared and signed by the within-named Thomas Spreadborough, at Bentley, in the county of Southampton, this 10th day of February, 1854,

Before me,

(signed) *F. R. Thresher,*
J. P. for the County of Southampton.

Alice Holt Forest, 11 February, 1854.

We, the undersigned, having personally examined the plantation referred to, in this declaration, believe the same to be strictly correct.

(signed) *Archibald Keppel Macdonald,*
Woolmer Lodge, Liphook, Hants.

John Manwaring Paine,
Farnham, Surrey.

Murray Marshall,
Godalming, Surrey.

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Enclosure No. 5.

I, JOHN BROOMFIELD, of Glenbervie Lodge, in the county of Hants, do solemnly and sincerely declare that, being the woodman in charge of Glenbervie Inclosure, in the Forest of Alice Holt, I have read that portion of Mr. Brown's Report of the 12th March, 1853, in which, referring to this inclosure, he states, that "The trees in these 300 acres vary very "much, both in respect to the number per acre, and the diameter of their stems; where the "land is a good loam and dry, they average 180 per acre, with an average diameter of "about seven inches:" and I declare, that only about 12 or 14 acres of the land here referred to, as being a "good loam and dry," has been thinned since the date of Mr. Brown's visit in November, 1852: and I further declare, that upon the whole of the land so referred to, the trees averaged about 100 to the acre, at the time of that visit, and that the measurements taken by me, of the diameter of the trees, were not taken in any part of the inclosure where the trees have been thinned since 1852: and I make this solemn declaration conscientiously believing the same to be true, and, by virtue of the provisions of an Act made and passed in the sixth year of the reign of his late Majesty King William the Fourth, intituled, "An Act to Repeal an Act of the present Session of Parliament, intituled, "An Act for the more effectual abolition of Oaths and Affirmations taken and made in "various departments of the State, and to substitute Declarations, in lieu thereof, and for "the more entire suppression of voluntary and extra-judicial Oaths and Affidavits, and to "make other provisions for the abolition of unnecessary Oaths."

(signed) *John Broomfield.*

Declared by the within-named John Broomfield, at Bentley, in the county of Southampton, this 10th day of February, 1854,

Before me,

(signed) *F. R. Thresher,*
J. P. for the County of Southampton.

Alice Holt Forest, 11 February, 1854.

We, the undersigned, having personally examined the plantation referred to, in this declaration, believe the same to be strictly correct.

(signed) *Archibald Keppel Macdonald,*
Woolmer Lodge, Liphook, Hants.
John Manwaring Paine,
Farnham, Surrey.
Murray Marshall,
Godalming, Surrey.

No. 24.

My Lords, Office of Woods, &c., 18 February, 1854.

I BEG leave to transmit, for your Lordships' information, copy of a paper which I have received from Mr. Higinbothom, dated the 14th of February, in the nature of explanation and observation on the subject of my Report to your Lordships, of the 26th of January. In transmitting this paper, I propose to make only a brief statement, and if I felt that I had done injustice to Mr. Higinbothom, no one would be more ready than myself to acknowledge it, and to state both to your Lordships and to Mr. Higinbothom that I regretted that I should have done so; but I am unable to satisfy myself that any such case has arisen, and, therefore, I shall proceed to state, as briefly as I can, some of the grounds on which I formed the opinions which I still entertain. I consider that Mr. Higinbothom's Report, of the 29th of December, was eminently calculated to deceive and mislead me, or any one, who should peruse it. It did, deceive and mislead me, and it is impossible for me now to say that that impression is removed from my mind by all that Mr. Higinbothom has stated in his paper of the 14th of February.

In order to illustrate my meaning, I propose to take one case, and not to travel through the whole extent of the several reports on both sides of the question, and embracing the whole of the forest.

GREAT LODGE INCLOSURE.

In Mr. Brown's Report of the 31st of March, 1853, he applies himself to the Great Lodge Inclosure, in two divisions.

1st. A division of about 150 acres; and,

2d. The remainder of this inclosure, which necessarily extends to about 239 acres, inasmuch as the whole inclosure consists of 389 acres.

1st.

1st. 150 Acres.

Mr. Brown's words are,—

"A portion of this inclosure, situate on "the north and west sides of the lodge, to "the extent of 150 acres, is under oak of "40 years of age. The crop has been much "overthinned of late, there being only, on an "average, 160 trees on the acre, while there "ought to be 200, and, from measurement, I "found these to have a medium diameter of "seven inches, at six feet from the ground."

1st. 150 Acres.

Mr. Higinbothom's words are,—

"I fear that Mr. Brown must have made "a very imperfect inspection of this part of "the inclosure, or he would scarcely have "estimated the trees at 160 on the acre. I "have ascertained, from actual enumeration "and measurement of the trees on several "acres, fairly selected as average specimens "of the growth of the plantation, and there "are less than 100 trees per acre, and that "their medium diameter rather exceeds ten "inches, instead of seven inches."

In my Report, of the 26th of January, I stated that 238 tons of bark were taken from the forest in the season of 1853, of which nearly 77 tons were taken from Great Lodge Inclosure; and, as Mr. Higinbothom, in his Report, made no mention whatever of thinning or bark produced in the season of 1853, and suppressed that fact, I was misled, to a certain extent, by his silence into the understanding that a portion of the bark taken from Great Lodge Inclosure came out of these 150 acres. As I now understand Mr. Higinbothom, no part of these 77 tons came out of these 150 acres, with the exception of what he terms "the "Eight Acre Piece," which forms a part of the 150 acres, and which Eight Acre Piece, he states that Mr. Brown did not see. I am, of course, uninformed whether Mr. Brown would admit that he did not see these eight acres, and that he had made an imperfect inspection of the inclosure; but Mr. Higinbothom does not deny that these eight acres were thinned in the season 1853, and, consequently, that the number of trees standing upon them was altered between November 1852, and November 1853. I am, therefore, on Mr. Higinbothom's own showing, correct in stating, that bark was taken in the season of 1853, from eight acres out of the 150, admitting, for the sake of argument, that Mr. Higinbothom is correct in stating that from the remaining 142 acres no bark was taken.

I consider, therefore, that, as regards this portion of the forest, Mr. Higinbothom's Report of December 1853 was eminently calculated to mislead, and did, mislead me; but still, with reference to the eight acres, the inference which it led me to draw, in point of fact, seems to be strictly correct, on Mr. Higinbothom's own showing. Thus far, with regard to my own Report; and, without travelling into all the details of the separate subject of Mr. Brown's Report, of the 10th of February, recently transmitted to your Lordships, as distinct from mine, I may be permitted to remark, that the important point of difference between Mr. Brown and Mr. Higinbothom still remains untouched. Mr. Brown originally stated that there were 160 trees on the acre; he now, on revisiting the forest, corrects his estimate, by stating that there are 186; and Mr. Higinbothom, in both his Reports, states that the actual number on the 150 acres "is less than 100." Here, then, is a distinct issue in point of fact, between the parties; and Mr. Brown, instead of coming nearer to Mr. Higinbothom as to the 150 acres, in his second estimate, increases his difference from him by 26 trees per acre, the original difference being 60, and the corrected estimate being 86. Mr. Higinbothom's assertion as to 100 trees per acre is broad, and co-extensive with the 150 acres, making no distinction as to the Eight Acre Piece, which he acknowledges to have been thinned; but, whether there were 100 trees per acre on it before it was thinned, or after, he does not state, nor am I able to understand; but it is clear that the assertion in his Report, of the 29th December, applied to the eight acres as part of the 150; and, if there were only 100 trees on it before it was thinned, it follows that there must now be a smaller number, after it was thinned, according to his admission.

I come now to the second division of Great Lodge Inclosure, which comprehends an area of 239 acres. The following are the statements of the respective parties:

Mr. Brown.

"The remainder of this inclosure, which "surrounds the portion referred to above, is "under oak, varying in age from 30 to 35 "years, with partial spots, of small extent, "under larch for hop-poles. The crop on "this portion is very irregular, in respect "both to quality and to the number of trees "on the acre.

"On some parts, where the land is very "good, the trees average six inches in "diameter, at six feet from the ground; and "of these there are 200 on the acre, while, "where the land is comparatively inferior, "there are from 300 to 350 trees on the acre, "and they average four inches and a half in "diameter, at the same height."

Mr. Higinbothom.

"I defer my remarks on these points, until "I reply to Mr. Brown's general observations "on the past management of the forest.

"From actual enumeration and measure-"ment, I find that, instead of 200, there are "127 trees on the acre, of an average "diameter of eight, instead of six inches, at "a height of about six feet."

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According to Mr. Higinbothom's statement, in his paper of the 10th of February, he means it to be understood, that the 77 tons of bark were taken from this portion of the forest, with the exception and addition of the Eight Acre Piece, already adverted to; but here arises my statement, in my Report of 26th January, that, in his Report of the 29th of December, he suppressed the fact of any thinning, or any bark having been produced in 1853, from any portion of Great Lodge Inclosure; and he somewhere states, that it would have been a work of supererogation, on his part, to make any mention of that subject. He does not state that there was no thinning in the 239 acres, or that the same number of trees stood upon the ground in November 1853, which did stand on the ground in November 1852. On the contrary, the inference, in point of fact, is irresistible that, inasmuch as there was no thinning on the 150 (save eight acres) of trees of 40 years old, so there was a considerable thinning and produce of bark from some portion, greater or less, of the 239 acres of trees, varying in age from 30 to 35 years old. The inference is equally irresistible, in point of fact, that the number of trees standing, was not the same in November 1853, as in November 1852.

Such is the substance of my statement, in my Report of the 26th of January, although in dealing with the subject in greater detail, it has been necessary to advert to two portions of the inclosure, instead of one.

Mr. Higinbothom supports his statement respecting the 150 acres, by the affidavit of William Liming, the woodman in charge of Great Lodge Inclosure, but that affidavit applies to the 150 acres only. So far as the thinning is concerned, I have no doubt that this affidavit is correct; but I am not prepared to admit that the calculation of the number and measurement of the trees has been correctly taken. No doubt, my Report of the 26th of January, spoke of the 150 acres alone, but I was well aware of the other division of the inclosure of 239 acres; and, if Mr. Higinbothom had not misled me by the suppression of the fact of all thinning, and the consequent production of bark, to a large amount, I should have adverted, in my Report of the 26th of January, to the 239 acres, as well as to the 150. The affidavit of W. Liming does not apply to the 239 acres. He has made no such affidavit with reference to the 239 acres as he has made with reference to the 150.

When treating of the 150 acres, I adverted to the substantial and main point of the whole subject, viz., the difference, in point of fact, between Mr. Brown and Mr. Higinbothom as to the number of trees actually existing, on the average, per acre. Entirely independent of the discussion in which I have been involved, that difference still remains unreconciled. On the 239 acres, Mr. Brown originally stated that there were an average on the acre of 275 trees. On re-visiting the forest within the last month, he reduces his estimate to 238, probably in consequence of the admitted thinning and produce of bark in that section of the inclosure. Mr. Higinbothom, in his statement of 29th December, states emphatically the number of trees to be 127, and reiterates that statement now, in his last Report. The difference between Mr. Higinbothom's and Mr. Brown's last estimate, is an average of 111 trees per acre, a difference too palpable to exist with a due reference to correctness by both parties; and I am at a loss to imagine how Mr. Higinbothom can adhere to a statement of the existence of the same number, after, as before, the fact being admitted, that a thinning of the 239 acres took place between November 1852 and November 1853.

It is not my intention to pursue the subject further, in this Report. I stated, in the outset, that I should take one case as an illustration, and I have taken the first in order.

On one point of an incidental nature, it is necessary that I should explicitly state, that in my Report of the 26th of January, a mistake was made in extracting some words from the Report of Mr. Higinbothom of the 29th of December, on the subject of the manner in which he had taken the diameter of trees. I am happy to have had the error pointed out, and to admit the justice of the correction. While the error was mine, the subject is of secondary importance, and however unimportant in substance, there is no mistake, however trivial, which ought not to be corrected; but the difference between Mr. Higinbothom and Mr. Brown, as to the actual diameter, which it is stated was calculated in the same manner, remains unreconciled.

One other subject only, I beg leave to advert to, before concluding. Mr. Higinbothom has called upon three gentlemen to attest the affidavits of the four woodmen; one of these gentlemen (Mr. Marshall) is unknown to me, but I can entertain no doubt of his entire respectability. The other two gentlemen, Sir Archibald Macdonald and Mr. Manwaring Paine, I well know to be gentlemen of the highest character and intelligence in the district in which they live, and I am well persuaded that their attestation is conscientious and correct, but it goes to a very limited point, in this case; and while it may be, and no doubt is, strictly correct, so far as it relates to the thinning, I cannot suppose that these gentlemen themselves made a personal enumeration of the trees, so as to be able to form an estimate of the number and average size of the trees on 389 acres, and of all the other plantations to which four other affidavits relate. It is obvious that their knowledge of the question under discussion, is imperfect and limited; and it was impossible that, from the mere reading of a few words from Mr. Brown's Report, they could be cognizant of the entire substance and bearings of the case under discussion, which unfortunately has become complicated. Their attestation, therefore, can in no way dispose of the case which is involved in the discussion between Mr. Brown and Mr. Higinbothom.

I have, &c.

To the Right Honourable the Lords Commissioners of Her Majesty's Treasury.

(signed) *T. F. Kennedy.*

Alice Holt and Woolmer Forests.

Mr. Brown's Reports.

No. 25.

Sir, Holt Lodge, 28 February, 1854.

I HAVE to acknowledge the receipt of Mr. Bedford's letter, of the 14th instant, enclosing a copy of the Report which had been addressed to you by Mr. Brown, on the 10th instant, in which he charges me with having concealed and perverted facts, and with having endeavoured to mislead you in the observations which, in compliance with your request, I had made upon his Report, of the 12th March last, upon the forests under my charge.

Charges, of a somewhat similar description, had previously been brought against me in the Report which you addressed to the Lords of the Treasury, on the 26th ultimo; but having been favoured, by the kindness of their Lordships, with a copy of that Report, I then, for the first time, became acquainted with the nature of those charges, of the existence of which, although they so seriously affected my character, I should otherwise have been totally ignorant.

When, by the perusal of that document, I became aware of the particulars of those extraordinary charges, I requested to be furnished with a copy of the Report now before me, but which Mr. Brown had not then completed, in order that I might be enabled to deal at once with the whole of the statements which might be made against me. You requested, however, that I would reply to the charges contained in your Report to the Treasury, in a "separate and distinct Report;" and I, accordingly, submitted, on the 14th instant, a complete refutation of the charges which you had brought against me, and, at the same time, I requested that they might be withdrawn.

Those charges were made, as I have stated in my Report of the 14th instant, under an entire misapprehension, and without full inquiry; and the point on which I felt chiefly aggrieved was, that such charges should have been submitted to the Lords of the Treasury, without my having had an opportunity of showing you that they were utterly groundless. The case is now very different. It cannot be alleged that Mr. Brown has brought the present charges against me under a similar misapprehension, or without a proper inquiry, because he states that, with your permission, he visited the forest on the 19th and 20th ult., in order that he might "repeat, and, if necessary, revise" his former observations and measurements. The charges with which I have now to deal, are the result of that visit; and, when I shall have proved them, as I am about to do, to be utterly without foundation, it cannot then be alleged that they have not been made deliberately and intentionally, or without a sufficient knowledge of the facts of the case.

Mr. Brown divides his Report into three heads, and I shall necessarily follow his example, and will now proceed to disprove every charge, and expose the inaccuracy of every assertion purporting to be founded on the observations made at his second visit to the forest.

1st. As to the average number of trees on the acre, in the several inclosures, and their average diameter.

Mr. Brown gives a tabular statement which, he informs you, will show at a glance the difference between his assertions and my statements, on the points adverted to, under the first head, and this table purports to be compiled from our several Reports of the 12th of March, and 29th of December last.

As he has accused me, in the fullest manner, of having made "gross mis-statements" and "statements which are utterly at variance with the truth," it might have been anticipated that he would, at least, have quoted accurately in this statement, the several figures, purporting to be extracted from those Reports; such, however, is not the case, as there are various enumerations, &c. inserted in this tabular statement in such a manner as to imply that I had disputed several of his measurements, on which I never even raised a question; and I may add, that he has also inaccurately quoted several of his own measurements, as will be seen from the following statement.

STATEMENTS, alleged by Mr. *Brown* to be extracted from his Report of the 12th March 1853, and Mr. *Higinbothom*'s Report, of the 29th December 1853.		STATEMENTS, as they actually occur in those Reports.	
Average Number of Trees on the Acre, as taken from Mr. Brown's Report.	Average Number of Trees on the Acre, as taken from Mr. Higinbothom's Report.	Average Number of Trees on the Acre, as taken from Mr. Brown's Report.	Average Number of Trees on the Acre, as taken from Mr. Higinbothom's Report.
Great Lodge:			
On 1st portion, 160 - -	Less than 100	On 1st portion, 160 -	Less than 100
On 2d portion, from 200 to 350.	127	On 2d portion, 200 -	127
		On 3d portion, 350 -	Not questioned.
Abbot's Wood:			
From 160 to 260 - -	100	On 1st portion, 160 -	About 100
		On 2d portion, 260 -	Not questioned.
Willow Green:			
From 160 to 260 - -	100	No numbers stated -	No numbers questioned.
Glenbervie:			
On 1st portion, 180 - -	100	On 1st portion (where the land is good and dry), 180.	About 100
On 2d portion, 300 - -		On 2d portion (where the land is inferior), 300.	Not questioned.

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Alice Holt and Woolmer Forests.

Mr. Brown's Reports.

The changes made in these figures, may not appear to be of much importance, but they are, in reality, very material. In Great Lodge Inclosure, Mr. Brown states, in his Report of the 12th March 1853 that, where the trees are "40 years of age, on the north and west sides "of the lodge," they average 160 to the acre; and that, on the portions under oak of from 30 to 35 years of age, the trees average 200 to the acre, in places where the land is "very "good," and 300 to 350 where the "land is comparatively inferior."

The first and second only of these measurements were corrected in my Report, where you will observe it stated that, instead of 160, I found less than 100, and, instead of 200, I found about 127. Mr. Brown, in his tabular statement, has now thrown his second and third measurements together, and, by placing opposite to them my statement of 127 to the acre, has implied that the latter enumeration had reference generally to the whole of the younger part of the inclosure, instead of its being confined, as is really the case, to the particular portion where the land is "very good," on which the trees, of 30 to 35 years of age, are alleged by him to stand 200 to the acre.

In the portions of his Report, of the 12th of March last, referring to Abbot's Wood and Glenbervie Inclosures, he also submitted separate estimates of the number of trees in two different parts of each inclosure. Of these estimates, as stated in my Report to you of the 14th instant, I only questioned the accuracy of the one which purported to refer, in each case, to the oldest trees in the inclosures; but Mr. Brown has assumed (on what grounds I know not) that my statement, that there were "about 100 trees on the acre," had reference to the whole of each of those inclosures, whereas, it had reference only to the particular places where he alleged that, in Abbot's Wood, there were 160, and in Glenbervie 180 trees to the acre.

There is another inaccuracy in the part of this tabular statement, referring to Willow Green Inclosure, in regard to which Mr. Brown gives an extract, purporting to be taken from my Report of the 29th of December, estimating the trees at 100 to the acre; but I am utterly at a loss to know from what part of my Report he made such an extract, as there is no mention whatever made in that document of the number of trees in this inclosure.

There are several similar inaccuracies in this tabular statement, as regards the alleged measurements of the diameters; but I refrain from exposing them in detail, as it must seem to be a mere waste of time to enter into these particulars. I cannot, however, suffer such inaccuracies and mis-statements to pass entirely unnoticed, because Mr. Brown has now narrowed the question between us into one of little more than one of mere veracity, as regards the accuracy of our respective enumerations and measurements; and it is essential, therefore, that the question should not be prejudiced by mis-statements of this kind, which, if suffered to pass unnoticed and unrefuted, might lead to conclusions being drawn, not only erroneous in themselves, but extremely injurious to me.

Mr. Brown then proceeds to submit to you the result of his further inspection of the forest, in a second tabular statement, which he informs you, "indicates with sufficient clear-"ness the falsity of every one of the assertions put forward by Mr. Higinbothom, as regards "this class of facts."

Merely remarking that Mr. Brown has repeated in this statement some of the misquotations to which I have before alluded, as being calculated to mislead, I will now furnish you with most ample and satisfactory evidence that the whole of my statements, of which the falsity is alleged to be so clearly indicated, are facts, and are proved to be so by the declarations of the foreman and woodmen, and by the evidence of the following gentlemen, who are all landed proprietors acquainted with the management of woodlands, and are, therefore, perfectly competent to speak with confidence on these particular points.

J. Spicer, esq., of Willy House, near Farnham, deputy-lieutenant and justice of the peace for the county of Surrey.

N. J. Fuller, esq., of Frensham Hill, near Farnham, a justice of the peace for the county of Surrey.

Crawford Davison, esq., of Pierrepoint House, Frensham.

Some of Mr. Brown's assertions, I may remark, have already been refuted by the declarations and certificates enclosed in my letter of the 14th instant; but, in compliance with your request to have "separate and distinct" reports on the charges made by you and Mr. Brown respectively, I will go through the several assertions seriatim, and will furnish a reply to each, without reference to the refutations already to be found in the documents accompanying that letter.

Great Lodge.

The following statement, being an accurate extract from the under-mentioned Reports, shows the points in dispute.

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COUNTS AND MEASUREMENTS.

	In Mr. Brown's Report of 12th March 1853.		In Mr. Higinbothom's Report of 29th December 1853.		In Mr. Brown's Report of 10th February 1854.	
	Number to the Acre.	Diameter in Inches.	Number to the Acre.	Diameter in Inches.	Number to the Acre.	Diameter in Inches.
The portion on the north and west sides of the lodge, under oak of 40 years of age - -	160	7	Less than 100	Fully 10	186	7
On the remainder of the inclosure, where the land is "very good" - - - - -	200	6	127	8	238	5 ½
Where the land is "comparatively inferior" -	300 to 350	4 ½	- Not referred to -			

From this statement, it will be observed that Mr. Brown, having repeated his inspection of this inclosure, adheres pretty closely to his former enumerations; and I must, therefore, refer you, in the first place, to the accompanying declaration of William Liming, the woodman of this inclosure, from which you will observe that the measurements and enumerations of the trees and stools upon no less than 13 acres of what was, at the time of Mr. Brown's visit in November 1852, the thickest part of the portion of this plantation, described by him as lying to the north and west of the lodge, and being under oak of 40 years of age, gives an average of less than 100 trees to the acre, with an average diameter of more than 10 inches. You will not fail to remark, also, that the woodman obtained this result by enumerating both the trees and the stools in the small Eight Acre Piece, which was thinned in 1853, as stated in my Report of the 14th instant, and that his measurements of the diameters were not taken in any place where the trees have been thinned, as was assumed in your Report to the Treasury of the 26th ultimo. Enclosure No. 1.

I must next request your perusal of the first portion of the accompanying letter from Messrs. Spicer, Fuller, and Davison, from which you will perceive that these gentlemen made a particular inspection of this inclosure on the 18th instant; that they selected a piece of ground in the portion of the inclosure referred to by Mr. Brown, as being under oak of 40 years of age, and which appeared to contain trees of an average number and size; and that they measured off an acre with a chain, and found less than 100 trees thereon, with an average diameter of 10 ½ inches. Enclosure No. 6.

These statements will, I trust, be considered conclusive of the strict accuracy of the statements contained in my Report of the 29th of December, as to this part of the plantation.

The measurements made by Mr. Brown and Mr. Sowray, of which this declaration and certificate are such plain and, I think, convincing contradictions, were made, I understand, not with a chain, but merely by stepping, and contained only a quarter of an acre in each measurement. Loose and unfair as such a mode of proceeding is, I should not have raised a question on the subject, but should have merely contented myself with pointing out to you, what every practical man knows, that it is impossible to arrive at a correct result by merely stepping out an approximation to a quarter of an acre, through underwood and over drains, if circumstances had not come to my knowledge which I do not think it right to withhold.

In the first place, I must remind you that the young gentleman from your office (I allude to Mr. Sowray, who accompanied Mr. Brown), has never, I believe, been in a forest before; has had no practice in surveying or measuring, has no means of judging of the age of any particular part of a plantation, where a measurement might be taken; nor does he even possess sufficient practical knowledge to enable him to see whether the part so measured was, or was not, a fair average specimen of the rest of the plantation of the same age. I make these remarks, without the slightest intention of disparaging this young gentleman, who may be a perfectly efficient accountant, but merely to show that the assistance, if any, which he rendered to Mr. Brown in his measurements, was merely that of a passive instrument, and that he is, in all probability, perfectly innocent of any complicity in Mr. Brown's proceedings.

When Mr. Brown re-visited the forest last month, for the purpose of repeating his observations, he remained in one of the plantations, while Mr. Sowray came to the lodge with a note from you, intimating to me that I was to place the foreman's services at their disposal. I immediately sought out, and joined Mr. Brown, and offered to accompany him, but he declined my services, and requested me to send the foreman.

Under these circumstances, I myself have no knowledge of the particular places where his measurements were taken, but the foreman has a perfect recollection, and has pointed out every particular place.

In the part of this plantation, particularly referred to by Mr. Brown, in his Report of the 12th of March, as being under oak of 40 years of age, and where he then stated there were 160 trees to the acre, which he has now increased to 186, Mr. Sowray and he made but one measurement. This precise spot was pointed out by the foreman (*vide* his declaration, Enclosure No. 5) to Messrs. Spicer, Fuller, and Davison, who measured an acre, so as to include the quarter acre so stepped by Mr. Brown, and found on that acre less than 100 trees, with Enclosure No. 6.

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with an average diameter of 10¾ inches, instead of there being, as alleged by Mr. Brown, 186 to the acre, with a diameter of seven inches.

In what manner, Mr. Brown can account for this discrepancy, I am at a loss to know, more especially as he observes, in his last Report, that "it is not conceivable that more "than a very small difference should occur between the calculations of any two parties, "provided both have the same object in view, namely, that of stating plain facts as they "found them." In this case, I think he must admit that, to use his own words, "the dif- "ference is certainly too great to have occurred through mere inattention, or even careless "measurement."

I may add here, that Mr. Brown measured five other quarter acres in this plantation, consisting of 389 acres; but you will see, by the foreman's declaration, that none of these taken where the trees are 40 years of age, of which fact he (the foreman) acquainted Mr. Brown at that time.

With regard to the measurement of 127 trees to the acre, with a diameter of eight inches, in the younger part of this inclosure, where Mr. Brown made an estimate of 200 to the acre,

Enclosure No. 1.

with an average diameter of six inches, I beg to refer you to the declaration of the woodman, to the effect, that he selected five average acres, and found the numbers and diameters thereon as stated in my Report of the 29th December.

Straights Inclosure.

In Mr. Brown's Report, of the 12th March 1853, he represents that, "in the neighbour- "hood of the woodman's lodge, there are about 130 acres of the land comparatively dry; "here there are 180 trees on the acre, 40 years of age, with an average diameter of eight "inches, at six feet from the ground, and of a promising, healthy character." In reply to this assertion, I stated that there were less than 100 trees to the acre, with an average diameter of 10 inches, in the locality referred to; and Mr. Brown has now rejoined, that, on his further visit to the forest, he found in the same locality, to which our formal statements referred, 186 trees to the acre, with an average diameter of 7½ inches.

Enclosure No. 2.

I beg to refer you to the accompanying declaration of James Spier, the woodman of this inclosure, to the effect that he measured six acres of average appearance as to the size and number of the trees, in different places in the part of the plantation described in the pre- ceding extract from Mr. Brown's Report, and that he found thereon less than 100 trees to the acre, with an average diameter of 10 inches.

Enclosure No. 6.

From the enclosed certificate of Messrs. Spicer, Fuller, and Davison, you will observe that they also selected an acre on the same principle as that chosen by them in Great Lodge, and that they found thereon less than 100 to the acre, with an average diameter of 10⅓ inches.

These will, I trust, be considered conclusive evidence that the statements on this point, contained in my Report of the 29th December, are strictly correct; and, if any proof is re- quired of the inaccuracy of the figures given by Mr. Brown, as the result of his further ob-

Enclosure No. 5.

servations and measurements, I beg to refer you to the foreman's declaration, from which you will observe that, on the occasion of his last visit, Mr. Brown did not make any measure- ment in the part of the plantation of 40 years of age (to which part alone his original asser- tion that there were 180, and my reply that there were less than 100 on the acre, had reference), but that the measurement from which he ascertained that there were 186 trees to the acre, was taken in a place where the trees are much younger than 40 years, and where there are, necessarily, a greater number to the acre.

Mr. Brown's revised measurement proves, therefore, to be no contradiction to my former statement, although he has alleged that such is the case. I may, perhaps, add that, in order to test the value of a stepped measurement of a quarter of an acre, as giving a fair average of the surrounding plantation, the foreman and woodmen went to the two places in this plantation where Mr. Brown and Mr. Sowray had stepped a quarter of an acre, and they measured an acre with a chain in each place, so as to include the small plot stepped by Mr. Brown and Mr. Sowray; and they found on one acre 111, and on the other 150 trees, in the precise spots from which Mr. Brown has derived his enumeration of 186 trees to the acre. These trees, I may add, are about 35 years of age, and are much closer on the ground than those of 40 years old, to which Mr. Brown's figures purport to have reference.

Goose Green.

Mr. Brown states, in his Report of the 12th March, that "That portion of this inclosure "which, on the plan of the forest, is marked as the 'freehold of the Crown,' and which extends "to 42 A. 0 R. 1 P., is under a very promising crop of oak, about 40 years of age; there are "180 trees on the acre, and these have an average diameter of eight inches, at six feet from "the ground." My reply to this assertion was to the effect, that there were less than 100 trees to the acre, with an average diameter of 10 inches, and Mr. Brown has now rejoined, that his revised measurement gives 164 to the acre, with a diameter of seven inches.

Enclosure No. 2.

In support of my statements, I beg to refer you to the declaration of James Spier, the woodman of this inclosure, to the effect that he measured an acre of average appearance in the above-mentioned plot, called the "freehold land," and that he found less than 100 trees thereon, with an average diameter of 10 inches. This is supported by the evidence of Messrs.

Enclosure No. 6.

Spicer, Fuller and Davison, who also selected and measured an acre, as stated in their cer- tificate, with the same result.

These statements are so clear and positive, and so perfectly uncontrovertible, that the question

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question naturally arises, where did Mr. Brown find 164 trees to the acre? On this subject, I felt it right to make inquiries, and I beg to inform you, that there are about two acres of this freehold land from which some large full-grown old timber-trees were removed for the navy, about 25 years ago. The vacancies caused by their removal, were subsequently filled up with young oaks, which are now less than 25 years old, and, as these necessarily occupy less space than a tree of 40 years old, there are more trees on the acre here than in any other part of the parcel described by Mr. Brown as the "freehold land;" any measurement taken in this spot would, therefore, give a most unfair and incorrect representation of the average growth of the part of this plantation, so stated by Mr. Brown to be of 40 years of age.

It was, however, on two separate places on these two acres, that Mr. Brown, assisted by Mr. Sowray, made the measurements put forward by him, first, for the purpose of supporting the assertion originally made by him, that on the freehold land, extending to 42 A. 0 R. 1 P., under a promising crop of oak about 40 years of age, there were about 180 trees to the acre; and secondly, in order to disprove my statement of there being 100 to the acre, which statement he has alleged I made perfectly at random, and with the special purpose of misleading."

In order to test still further Mr. Brown's accuracy, Messrs. Spicer, Fuller, and Davison examined the two places measured by him, which were pointed out to them by the foreman, and they measured an acre so as to include the thickest quarter acre stepped by Mr. Brown; and they found on that acre, as you will see from their certificate, 144 trees, being 20 trees less to the acre in the very thickest part of this parcel than Mr. Brown's assertion of the number to the acre, over the whole; you will, perhaps, observe also, that they state their belief that, notwithstanding the numbers on these two acres, the quantity and diameters of the trees on the 42 acres of freehold-land is correctly stated in my Report of the 29th December. Enclosure No. 6. Enclosure No. 5.

Although a perusal of the foregoing observations, and of the documents by which their correctness is attested, may raise more than a doubt as to Mr. Brown's accuracy, yet they will, I think, be considered strictly to corroborate his remark, that the amount of discrepancy between my "assertions and what he terms his 'certified facts,' cannot possibly be assigned "to mere error of calculation."

Abbot's Wood.

In Mr. Brown's Report, of the 12th March 1853, he states that, "on a considerable extent "there are about 160 on the acre, and there they have lately been much overthinned, while, "on other portions, there are 260 trees on the acre, and these have been neglected, and not "thinned sufficiently. The average diameter of the trees here, I found to be about six inches, "at six feet from the ground."

The first only of these estimates was questioned in my Report of the 29th December last, but Mr. Brown has taken upon himself to assume that my statement, that there were about 100 trees to the acre, had reference to the whole inclosure.

In the tabular statement given by him, he has now merged his two estimates into one, thereby meaning to allege that, in his former Report, he estimated the number of trees over all at 210 to the acre, and that, on his last inspection, he found 240; and he then draws a comparison between this statement and my enumeration of 100 to the acre, with the intention of showing the inaccuracy of the latter; quite ignoring the fact, that no comparison can be drawn between them, because my enumeration refers to the oldest portion of the trees, his statement, to the whole inclosure.

Of the correctness of my enumeration, I furnish a proof in the declaration of the woodman, John Broomfield, to the effect that he measured one acre of the land alluded to in Mr. Brown's first measurement, and found 100 trees to the acre, with an average diameter of nine inches. Enclosure No. 3.

From the enclosed certificate of Messrs. Spicer, Fuller, and Davison, and from the declaration of the foreman, you will perceive that they tested the accuracy of the measurements recently made by Mr. Brown and Mr. Sowray, and that, in lieu of 240 trees, they found in the places so measured 166 and 208 trees respectively. Enclosure No. 6. Enclosure No. 5.

Glenbervie Inclosure.

Mr. Brown has again made precisely the same error, in regard to my contradiction of his assertions, as he has done in the last-mentioned inclosure; I refrain, however, from wasting time in showing the inaccuracy and unfairness of Mr. Brown's mode of stating the figures, because my observations on Abbot's Wood are perfectly applicable to this inclosure, also.

Of the correctness of my statement, that where the land was a good loam and dry, there were about 100 trees to the acre, of an average diameter of eight inches, I furnish a proof in the accompanying declaration of the woodman, John Broomfield. Enclosure No. 3.

In concluding my remarks upon the several inclosures, it is, I trust, unnecessary to draw your attention to the fact, that my statements on the points in dispute, instead of being made

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made "at random," and with the special purpose of misleading, as alleged by Mr. Brown, are proved to be strictly correct by the solemn declarations of the woodmen, and by the certificates of three gentlemen. The evidence adduced, as to Mr. Brown's assertions on the same points, is equally conclusive, and speaks for itself, without one word of comment from me.

I must, however, notice Mr. Brown's assertion, that "had the averages of the trees per "acre indeed been, as Mr. Higinbothom represents, this would have proved an amount of "mismanagement very far beyond all I have indicated."

In adverting to this paragraph, I merely wish to remark that the average of the trees to the acre, as represented by me, is now proved to be correct; and it follows, therefore, that, in his opinion, there must be, at this present moment, an amount of mismanagement very far beyond all that he had indicated.

It might, perhaps, be anticipated that, on this point, I should contradict Mr. Brown, but he has already, in his former Report, furnished such a complete contradiction of this extraordinary assertion, that it is quite unnecessary for me to express my own opinion on the subject.

You will be so good as to bear in mind that my enumerations of the number of trees to the acre, refer (with only one exception) to the oldest portion of each inclosure, where, generally speaking, the trees are between 35 and 40 years, or have actually arrived at the latter age; only 22 acres, out of the whole extent referred to in those enumerations, have been thinned since November 1852, as proved by the declarations of the woodmen, forwarded with my Report of the 14th instant; and it follows that the crop in this portion of the forest, with the exception only of those 22 acres, was as thin at the time of Mr. Brown's visit in that month as it is now. If, therefore, there is such an amount of mismanagement apparent now, it must have been equally, or even more visible, in November 1852, when the trees were a year younger; and Mr. Brown, who has passed such severe strictures on my management on various points, ought, if such had been the case, to have pointed out to you the state of the crop, in this respect, in his Report of March 1853.

If you will refer to that Report, however, you will find that he passes repeated encomiums on the crops, more particularly on the larger trees, to which my enumerations have reference, and which he now implies have been ruined by "mismanagement."

In the Straights Inclosure, he says, in that Report, that the oaks of 40 years of age, are of a "promising, healthy character." In Goose Green, the freehold land is stated to be "under a very promising crop of oak, about 40 years of age." In Abbot's Wood, the crop, it is stated, "promises to become first-rate timber." In Willow Green, the "age and con-"dition of the crop are" stated to be "in every respect, of a similar character to those" in the one last described. In Glenbervie, that the crop "is in a tolerable state of health, and "and will become timber of good value." And, in Holt Pound, that the crop is similar to that in Abbot's Wood.

In addition to which, Mr. Brown reported his opinion generally, as to the whole crop, "that a great part of the crop is comparatively good of its age, and will, under future good "management, become valuable timber."

Such was Mr. Brown's deliberate opinion, in March 1853; since which time, only 20 acres have been thinned, out of the portion in which he now asserts that there has been proved to be an "amount of mismanagement" beyond all that he had previously indicated.

Mr. Brown must, therefore, have either disguised the real state of the case in March 1853, and have made a Report to you describing the crop in terms of which it was totally undeserving, or he must have made the present assertion of "mismanagement" without the slightest foundation; and I think no impartial person, after perusing the several documents accompanying this Report, can have any doubt which of Mr. Brown's statements is correct.

Leaving Mr. Brown in this dilemma, I proceed to notice his assertion that my "reckless "mis-statements" (which I have now proved to be facts) are to be accounted for by my desire to prove the entire quantity of the crop to be as small as possible, in order to strengthen my argument as to the impossibility of the revenue he estimated being realized from the forest.

In order to enable me to refute the charge which I have just disposed of, it was necessary for me to refer you to Mr. Brown's former Report for a satisfactory contradiction of his assertion. In the present instance, I am happy to say, that I shall not have to trouble you to refer so far back, because he has himself, in the preceding paragraph of the Report now before me, furnished me with a most complete and ample refutation of this charge.

In that paragraph, he is so good as to state that trees measuring 10 inches in diameter, will contain "fully double" the cubic contents of those seven inches in diameter, and will bring nearly "double the price."

Now, it is proved by the enclosed declarations, that Mr. Brown has very much understated the diameters of the trees, in the several inclosures; and the extent to which his inaccuracies

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on this point are carried, so far as they have undergone examination and proof, is shown by the following statement.

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	Alleged by MR. BROWN.	Proved by MR. HIGINBOTHOM.
	Average Diameter in Inches.	Average Diameter in Inches.
Great Lodge:		
First portion - - - - -	7	10 ½
Second portion - - - - -	6	8
Straights - - - - - - -	8	Above 10
Goose Green - - - - - -	8	„ 10
Abbot's Wood - - - - - -	6	9
Glenbervie - - - - - - -	7	8

A glance at this statement, will at once show that, according to the rule laid down by Mr. Brown, which I am free to confess is perfectly correct, it will actually be the case that with the number which I have proved to be on the acre, with the dimensions stated in the last column, there will be nearly as large a quantity of timber as if the numbers and dimensions stated by Mr. Brown were correct; and, consequently, that so far from my statements showing any diminution in the value of the timber on the forest, and prospectively a diminution of the revenue to be derived therefrom, they clearly prove, on the contrary, that the forest, with the present number of trees to the acre, is nearly as valuable, and contained nearly as much timber, as if there were the large number of trees to the acre which Mr. Brown has alleged to be the case.

Notwithstanding that the flourishing condition of the crop is so much beyond Mr. Brown's expectations, I am prepared to affirm, and I am strengthened in this opinion by Messieurs Murray Marshall, George Hull, and William Mulford, three timber-merchants and valuers, of long experience and extensive practice, that a part of the revenue proposed to be obtained by Mr. Brown, would be procured on ruinous terms, inasmuch as it would only be raised by sacrificing a portion of the growing crop, which ought to stand to maturity.

In concluding his observations on this portion of his Report, Mr. Brown informs you that portions of all the inclosures, except Abbot's Wood, had been thinned in 1853; and he adds, that these thinnings would necessarily affect some portions of the statements embodied in his Report, and that I am best able to explain why I made no reference to such thinnings in my observations.

Mr. Brown, at the time of making this statement, had been shown, by the foreman, the particular places which had been thinned in 1853, and he had also procured from the foreman "a statement showing the quantity of bark taken from each inclosure." He had ample opportunities, therefore, of satisfying himself, on his examination of the forest on the 19th and 20th January, that the thinnings which had been taken out, would not affect our several enumerations; and you will observe, as the result of that examination, that he cautiously abstains from making a specific charge against me on the subject. It is much to be regretted, therefore, that, within a week after that visit was made, and without waiting for Mr. Brown's Report, which, as you must perceive, touches very lightly on the point in question, you should have acquainted the Lords of the Treasury that you had "reason to know" that certain specified quantities of bark had been taken out of the different inclosures in 1853; and, further, that, acting on that information, you should have preferred the very serious charges against me which, solely through the kindness of their Lordships, I was enabled to refute so completely in my letter of the 14th instant.

Those charges, you will observe, have not been repeated by Mr. Brown, who merely contents himself with an insinuation that I shall be best able to explain the cause why such thinnings were suffered to pass unnoticed. If I had not been able to offer a perfectly satisfactory explanation, on that point, I think I may safely assume, from the course which Mr. Brown has hitherto followed in this controversy, that he would not have lost such an opportunity of reiterating the charges with which he has already assailed me, of having wilfully concealed and perverted the truth; and the fact of his having passed over this point, is pretty strong evidence that his inspection of the plantations convinced him that there was no foundation for the charge with which I have been assailed, of "suppressing the fact" of such thinnings having taken place; and I repeat, therefore, what I have already stated in my Report of the 14th instant, that, if you had communicated your suspicion to Mr. Brown, before representing me to the Lords of the Treasury as having made a daring attempt to impose upon you, he was in a position to have convinced you that those suspicions were unfounded.

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Having now refuted the whole of the specific charges preferred against me in this portion of Mr. Brown's Report, I beg to inform you, with reference to his repeated insinuations that the forest has been overthinned, that there cannot be a more convincing argument of the necessity of freely thinning out oak-timber than the remark made by Mr. Brown, to which I have already referred, namely, that a tree of 10 inches diameter will be worth nearly double the value of one of seven inches diameter; and I am fully convinced that an attempt to carry out the rule laid down by him, that there "ought to be" 200 trees, of 40 years of age, to the acre, would be most mischievous in its effects on the crop in this forest, inasmuch as the present crop of growing timber on the younger plantations would become, by being left comparatively unthinned in order that 200 trees might be left upon an acre, a mere collection of drawn-up sticks without heads or bodies, with diameters of five or six inches, instead of 10 inches, and, consequently, that the plantation would be of far less value, acre for acre, than the present crop, and its ultimate growth completely ruined, for naval purposes.

Every practical man with whom I have conversed upon the subject, and who is acquainted with the soil in this forest, agrees with me in that opinion; and, if any evidence is required as to the success which has attended the management of these plantations, from which a handsome yearly revenue has been derived for many years, I beg to refer you to the accompanying letters from the following gentlemen, who are unanimous in the expression of their opinion as to the propriety of the way in which the thinning has been conducted by me.

These gentlemen are,

Enclosure No. 9. Sir Archibald Keppel Macdonald, Baronet, M. P., Woolmer Lodge.

Enclosure No. 10. Ross Donally Mangles, esq., M. P., Woodbridge.

Enclosure No. 6. J. W. G. Spicer, esq., Deputy-Lieutenant and Justice of the Peace for Surrey, Willy House.

Neston J. Fuller, esq., Justice of the Peace for Surrey, Frensham Hill.

Enclosure No. 7. John Manwaring Paine, esq., Farnham.

Enclosure No. 6. Crawford Davison, esq., Pierrepoint House.

Enclosure No. 11. Murray Marshall, esq., Godalming, timber-merchant, and manager of a large quantity of young plantations.

Enclosure No. 12. George Hull, esq., Godalming, and
Enclosure No. 8. William Mulford, esq., Greynell } Timber-merchants.

I now proceed to the second portion of Mr. Brown's remarks, namely, "Regarding the "drainage of the inclosures, generally."

Mr. Brown commences by giving long extracts from his Report of the 12th March, and from mine of the 29th December, upon this subject; and he then proceeds to express his surprise at my having ventured to assert that it was "to be inferred (from his Report) that "the important operation of drainage had been entirely neglected," when he had distinctly stated that there had been a "partial drainage on many parts of these plantations."

If Mr. Brown, when he made this statement, had read, with common attention, the long extract from my Report, quoted by him in his Report of the 10th instant, he would have observed that the "inference" of which he complains was not drawn, as he alleges, from his Report, but from a specific portion of that Report, inasmuch as the remark, which he considers so unwarranted, was made in the particular part of my Report relatingto Great Lodge Inclosure, where I stated that "from the tenor of Mr. Brown's observations on this "Great Lodge and other inclosures, it might be inferred that the important operation of "drainage had be enentirely neglected." Now, if Mr. Brown had re-perused his observations on the several inclosures, he would have observed that, although he dwells at every opportunity upon the dampness of one or other of them, and even gives specific directions as to the positions and dimensions of the drains to be laid down, he never even hints at there being a single rod of drain in the forest; and I must confess, therefore, that it appears to me, with due submission to Mr. Brown, that "no unprejudiced man," on perusing his observations on the several inclosures, could have arrived at any other conclusion than I did on the subject.

It is quite true that, in summing up his observations, Mr. Brown parenthetically alludes to the existence of a "partial drainage;" and you may perhaps remember that his observations on that point were not overlooked by me, as I was at some pains to show of what this so-called "partial drainage" consisted.

In my Report of the 29th December, I showed that there were 239 ¾ miles of drains in the forest: I gave a tabular statement of the average number of rods of drains to the acre over the whole of each plantation, and also of the average number in the "damp places," which Mr. Brown recommended should be dried by open drains. I proved to you, by reference to Mr. Brown's work, "The Forester," of which you forwarded to me a copy, that, in these damp places, the drains were laid on of the same depth, and quite as closely, as he himself in his own practice ventures to place them, for the reason, as he states, that if they are more closely put in "the trees are very apt to be blown up by the roots;" and I further showed that drains were then, and always had been, in existence along the sides of the principal rides and drives where Mr. Brown had recommended that drains should be cut.

Since that Report was written, Mr. Brown has re-visited the forest, for the purpose of revising his observations, and he has had ample opportunities, therefore, of satisfying himself as to the correctness, or otherwise, of my statements.

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The result of this inspection is, that he does not attempt to controvert the accuracy of my statements, on this point; but, after admitting that "there may be the extent of open cuts "mentioned by Mr. Higinbothom (what he considers drains) in the inclosures of the forest," Mr. Brown falls back upon a general allegation that the "drainage is powerless to dry the "land to such an extent as to make it available for the maintenance of the crop in full health "and vigour."

With regard to the "open cuts" which Mr. Brown speaks of, I cannot find, in his recommendations as to the dimensions of the drains, that he ever advises that they should be covered over, and I cannot, therefore, see how such drains can be anything else but "open "cuts;" and these, be it remarked, are not only "what he (Mr. Higinbothom) considered "drains," but are of the very same depth as those which Mr. Brown recommends in his own practice (*vide* quotations from "The Forester," given in my former Report), and, with due deference to him, I cannot understand upon what principle either he or I can consider them to be anything else but drains.

After having, in his first Report, recommended that drains should be cut along the sides of the roads, with other drains diverging from them into the inclosures, he is now forced to admit that "there are, generally speaking, open cuts along the sides of the principal roads "leading through the inclosures, with others diverging from them into the body of the "plantations."

This being a plain fact, patent to the most superficial observer, he cannot now venture to deny the existence of these drains; but, as their practical efficiency is not capable of proof in the same manner, he shifts his ground, and falls back upon the general assertion that the drains are, generally speaking, badly "laid on, shallow," &c. &c. &c.

If these drains are "shallow," I can only assure you that Mr. Brown's views as to the proper depth of a drain, must have undergone a remarkable change, since he wrote his Report of the 12th March 1853, because these drains are generally the depth which he there recommends, and many of them are six inches deeper. If the statements contained in my Report, of the 29th December, as to their depth, had been inaccurate, Mr. Brown had ample opportunity, when he was in the forest, of refuting them by the simple application of a three-foot rule; but he cautiously abstains from giving any measurements which could at once be refuted, and contents himself with calling them by the indefinite term of "shallow."

As to the rides being nearly impassable, in winter, to a foot-passenger, I can assure you that, as these rides are mere open spaces, cut through the several plantations for the removal of the produce, are entirely without metalling, and are constantly poached by the traffic of heavy timber-carts and waggons, I really cannot see how, in this strong clay land, they could be otherwise than impassable for foot-passengers in winter time, except during a frost; and the fact of their being in that state is no proof whatever that the land is not sufficiently dry for the growth of oak.

Mr. Brown then proceeds to assert that the growth of common rushes, and strong rough grass, in their native luxuriance, in all these inclosures, is quite conclusive evidence to an unprejudiced practical man, that the existing drainage is comparatively worthless, as far as the healthy maintenance of the crop is concerned. On this assertion, I must at once join issue with Mr. Brown, because, in the first place, the rushes do not grow in their native luxuriance, but are very sparsely scattered about by the sides of the watercourses, and in a few other places; and, secondly, that the opinion of many unprejudiced practical men is directly opposed to that of Mr. Brown.

These gentlemen agree with me, that the existence, in some places, of rushes and strong rough grass, is no evidence that the land is insufficiently drained for the growth of the best quality of oak-timber.

Having thus denied Mr. Brown's assertion, I might cease to pursue the subject further, because I am assured that the present drainage is amply sufficient to maintain the crop in proper health; but, as he urges that the existence of the rushes is a proof that drainage has been neglected, and represents the necessity of the adoption of the system of drainage recommended in his Report of the 12th March, namely, the formation of main drains of a depth of three feet, and of common drains of two feet six inches, (in places, I may add, which are already amply drained), I will at once inform you that Mr. Brown is quite in error, if he supposes that drains laid down upon that principle will eradicate even the rushes now existing in the plantations.

It is well known that the roots of rushes go to the depth of several feet into the ground, far below any open ditches, or drains, that can be profitably or economically made in woodlands, and it is notorious, to all practical drainers, that rushes cannot be destroyed in old pasture-land except by deep under-drains. For this reason, therefore, the present drainage (which is perfectly effective for the purpose for which it is intended) has not eradicated the rushes, and the construction of any number of drains of the depth recommended by Mr. Brown, would be equally inoperative.

Neither is the existence of strong rough grass the slightest proof that the land is too wet for the growth of oak-timber, because some vegetation of this kind will always spring up on land of this quality, where the oaks have been well thinned out, and there is scarcely any underwood.

It is scarcely necessary for me to notice Mr. Brown's assertion, that his recent visit to the forest confirmed him in his opinion that "from the neglect of adequate drainage, the trees "would be found to have made comparatively little progress," because, as oak-trees require about 100 years to arrive at maturity, and as a period of about 15 months only had elapsed between Mr. Brown's two visits, I really do not think that, under the most favourable circumstances, he could expect to see any very striking alterations in the trees; although some of

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of the younger portions of the plantations, particularly those in the places which Mr. Brown recommended should be cleared, have made rapid progress during that time. In reply, however, to Mr. Brown's statement that he must impress on Government the fact, that if the drainage is still neglected, the crop will attain only a comparatively small value, &c., I can only repeat, that the land is amply and sufficiently drained for the growth of oak, and that the present state of the crop is sufficient evidence, to any impartial observer, that such is the case. On this point, I beg to refer you to the letters of Mr. Hull and Mr. Murray Marshall, both of whom are well known timber-merchants, and the latter having, at this moment, many hundred acres of plantations under his charge. These gentlemen, whose opinions I venture to say are as much deserving of consideration as that of Mr. Brown, consider that the forests are fully drained, and that it would literally be a useless expenditure of money to cut any more drains.

I might pursue the subject further, but the forest must be judged upon its own merits, and not by the assertions of a person whose statements I have shown to be equally inaccurate and contradictory.

I now proceed to the third head, namely, "with regard to the extent of pine-nurses which "had existed in the several inclosures."

You will be so good as to bear in mind, that one of the causes to which Mr. Brown attributed the comparative inferiority of the crop in Holt Forest (a great part of which he had previously stated to be comparatively good of its age), was the neglect to thin out the nurses, to which charge I replied that no nurses were ever planted on about 1,500 acres of the forest.

Mr. Brown now assures you that, after the "extraordinary assertions," which I had made as to the number of trees to the acre, (which assertions I may observe, however extraordinary they might have been considered by Mr. Brown, have been proved to be strictly accurate, while his have been shown to be the contrary), he was quite prepared to find me making statements "equally false and erroneous" as regards the nurses, and he attempts to disprove my statement, that "no nurses were planted on about 1,500 acres," by repeating the purport of a statement alleged to have been made to him by the foreman, to the effect that there were plenty of nurses in Glenbervie Inclosure, and a number of them in all the inclosures, but not nearly to the same extent as in Glenbervie.

Upon the faith of this statement, Mr. Brown has at once charged me with falsehood, whereas, if he had given proper consideration to the subject, he would have perceived that this statement might be correct, and yet not affect the accuracy of what he terms my "extraordinary assertion," inasmuch as the fact of there having been nurses planted in Glenbervie, and other inclosures, is quite compatible with my statement, that there were about 1,500 acres without nurses.

Mr. Brown, however, refrains from making the further inquiries, which most persons, I trust, would have considered it advisable to make under the circumstances, before making a charge of falsehood, and at once informs you, upon the faith of that statement, that "no dependence "is to be placed upon any statement" which I may please to advance.

The relative value of our respective assertions has been, I trust, so clearly proved, that I need scarcely inform you, in reply to this most uncalled-for charge, that before, that Report was written, I had procured as accurate a list as circumstances would permit, of the portions of the several inclosures which were planted with nurses, of which list I annex a copy.

Great Lodge	40 acres.
Glenbervie	180 „
Holt Pound	40 „
Goose Green	3 „
Willow Green	80 „
	343 „
Abbot's Wood	None.
Straights	„

No nurses were ever planted with the oak, but a few larch were put in about 40 acres to kill the underwood, some years after the oak was planted, and about 150 Scotch pine were put in for the same purpose.

Deducting the total number of acres so planted with nurses, from the acreage of the forest (1,896 acres), it will be found that no nurses were planted in about 1,553 acres.

Enclosure No. 2. Enclosure No. 4.

The accuracy of the foregoing list is vouched, partly by the declaration of James Spier, the woodman, who has been employed in the forest, at different times, for more than 40 years, and partly from the declaration of William Eade. Both of these men assisted in planting out the young trees, when these plantations were made; and having lived in, or on, the borders of the forest all their lives, have a perfect recollection of the facts.

You will now perceive that my "assertion," extraordinary as it appeared to Mr. Brown, is not a "fallacy," as he has informed you, but is strictly correct; and further, that his allegation that he was "the more confident of this" (the fallacy of my assertion) "from his "own observations as to the generally drawn-up and weakly character of the oak-crop," is a proof rather of the confidence of his assertions than of the accuracy of his observations.

Mr. Brown next charges me with "direct falsehood," in having stated that no nurses have been left in the forest for 13 years.

He

He commences by stating that, in November 1852, he observed many nurses remaining (much more than there are now) among the oaks, and that he was then informed by the foreman, in my presence, that eight or ten years ago there were a considerable quantity of these in all the inclosures; but they had since that time been almost all removed, in order to give the oaks room, and that I did not deny this fact, but assented to it.

In reply to this assertion, I can only state, that no such reply was made by the foreman in my hearing, or I should at once have contradicted it, because I know that the nurses were removed long before that time; and further, that you will perceive, from the enclosed declaration, that Thomas Liming, the foreman, denies that any such conversation took place. You will also observe that Liming deposes that, on the occasion of Mr. Brown's last visit, the statement made by him (Liming) was to the effect that the nurses were removed within the first three or four years of my arrival; and you will remark that he particularly pointed out to Mr. Brown the present thriving state of the crop in Glenbervie Inclosure, as a proof that the nurses had been removed in sufficient time to prevent the spoiling of the oaks.

Enclosure No. 5.

I may state here that, in my Report of the 29th December, I made a trifling inaccuracy in stating that no nurses had been left for 13 years. That statement was made from my own recollection, and that of the woodmen; but, having since referred to my papers, I find that, in Glenbervie Inclosure, some nurses were left for a year later.

This trifling inaccuracy does not, however, affect the question at issue, in the slightest degree; and, in corroboration of my statement, I beg to refer you to the declarations of the oldest woodmen, Spiers and Broomfield, and also of William Eade, who severally depose to there having been no nurses left for 13 years in the inclosures with which they have respectively been best acquainted, except in Glenbervie Inclosure, where, as I have stated, some were left for another year.

The accompanying letter from Crawford Davison, esq., is, as you will observe, to the same effect. This gentleman, I may add, is the only one of those who assisted me in my measurements, &c., who has lived long enough near the forest to speak with accuracy as to the time when the nurses were removed.

Mr. Brown then proceeds to state that, in his last visit, he saw and pointed out to Mr. Sowray on the spot a few nurses growing in the greater number of the inclosures, and that, in Glenbervie Inclosure, he saw a considerable quantity lying felled along the sides of the roads.

In reply to this statement, I must remind Mr. Brown that, although a nurse may be a Scotch-pine, it does not necessarily follow that every Scotch-pine which he may have seen in the forest, either is, or was a nurse. Many of the pines now in the forest were self-sown, and others were planted by me at gates, and in small clumps, at particular spots, for ornament; independently of which, every manager of a plantation knows that, when the last nurses are thinned out of a plantation, there will generally be a few trees left by the sides of roads, or at gates and fences, for ornament; and, occasionally, one may be left in a plantation, because, from the failure of the adjoining oaks, it fills up a space that would otherwise be vacant. Scotch-pines of this kind are allowed, therefore, to grow to timber, but they are not nurses, because no detached and single tree can answer that purpose: and it is as absurd to apply the term "nurse" to one of these Scotch-pines, as it would be to call an oak-tree of 30 years of age a "sapling," because it was designated by that term 15 years previously.

And I may add, that of the trees which have ceased to be nurses for the last 13 years, there were not, at the time of Mr. Brown's visit, in November 1852, 50 trees upon the whole 1,896 acres of which the forest consists.

With regard to the trees lying by the side of the road in Glenbervie Inclosure, which Mr. Brown calls nurses, I beg to state that they were larches which were planted, not as nurses, but in one or two spots as part of the crop. The assertion that he saw many more nurses (I presume he means Scotch-pines) remaining in November 1852 than at his last visit, is rebutted by the declarations of the woodmen, from which you will perceive that only six Scotch-pines have been taken out since the former date.

Having now gone, in detail, through the whole of Mr. Brown's charges, in concluding which he informs you that, as all my assertions as to matters of fact have been proved to be false, my "arguments and opinions may be very easily and summarily dealt with," I venture to remark, that as I have conclusively shown that he utterly failed to controvert my statements, as regards the actual facts of the case, he may meet with more difficulty than he anticipates in refuting the arguments and opinions which he thinks can be so summarily disposed of.

I need scarcely add, that I am perfectly ready to support the opinions expressed in my Report of the 29th December last; but at the same time I beg to submit, that no practical good can be derived from a continuance of the controversy, which has already been the cause of some inconvenience in the forest, in consequence of the woodmen having been taken from their ordinary operations to make the various measurements, &c. described in their several declarations. The points still remaining in dispute between Mr. Brown and myself (if you should consider, after a perusal of this Report and its enclosures, that any question is still unsettled) would be decided in a few hours, by an inspection of the forest, by any skilful and impartial person, or persons.

I have now shown that, in his remarks upon the drainage, Mr. Brown has cautiously refrained from questioning the accuracy of my statements as to the extent and dimensions of the drains; that he was forced to admit the existence of drains in places where, in his first Report, he had advised their formation; that the existence of rushes is no proof that the land is insufficiently drained for the growth of oak, and that the system recommended by Mr. Brown would not affect them; and, lastly, that the present drainage is declared by competent

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competent and independent persons to be amply sufficient and effectual for the purposes for which it is required.

As regards the disputed number of trees, and the alleged improper thinning, I have shown that, in every instance in which he has attempted to impugn the accuracy of my observations, he has signally failed; that the extraordinary mis-statements which I pointed out in his first Report, remain wholly unaccounted for; that, in what he has since written, he has repeatedly contradicted not only the assertions contained in that Report, but also those contained in the subsequent portion of the Report now under consideration; that, although a compliance with his recommendation might force a larger temporary but fictitious income from the forest than can be legitimately obtained, the adoption of such a course would, of necessity, involve the rapid destruction of the source from which the future income could alone be derived; and, lastly, that the plantations are, in the opinion of gentlemen perfectly competent to judge, in such a thriving and healthy state, that it is practically impossible that there could have been the faults of management alleged by Mr. Brown.

Having brought these facts before you, I have only to notice that, when Mr. Brown's first Report was placed in my hands, I was willing to attribute his extraordinary mis-statements either to the haste, or carelessness, of his inspection of the forest. The case now, however, assumes a much more serious aspect. He has had an opportunity of revising his observations, and of correcting those mis-statements; but, far from doing so, he has endeavoured to support his original assertions by a fresh display of figures, which have been proved to be as inaccurate as those first submitted; and, not satisfied with this attempt to screen himself from the consequences of his former error, he has deliberately assailed me with the most injurious and uncalled-for charges. He has alleged that I have made "statements which are utterly "at variance with the truth," and that these statements have been made with the "special "purpose of misleading," and also that I have "wilfully concealed and perverted the truth." He then assures you that no "dependance can be placed on any statement" I may be pleased to make; and, growing less scrupulous as he proceeds, he at length charges me with "direct falsehood."

To these unjustifiable imputations, I have no intention of replying by invective, or any other remark, than that the documents I forward with this Report speak for themselves; and, if the facts detailed in those documents and my Reports should "blast the reputation" of Mr. Brown, it will not be attributable to any attempt to do so on my part, as stated in your Report to the Treasury of the 26th ultimo, but solely to his own proceedings.

I now approach the completion of a most disagreeable task; but I cannot conclude without expressing my extreme surprise and regret, that I should not have received any communication whatever from you, on the subject of my letter of the 14th instant.

In your official Report, of the 26th ultimo, to the Lords of the Treasury, which you requested their Lordships would cause to be printed, you alleged, upon grounds which you intimated were incontrovertible, that I had been guilty of the suppression of an important fact; that my statements were deceptive, fraudulent, and untrue; were written with the object of imposing upon your credulity, and making you my dupe; and of blasting the reputation of Mr. Brown. Your Report, in short, contained charges against me which, had they been maintainable, would have warranted you in stating that you "can entertain no "doubt as to the course which it will eventually become your duty to pursue as regards Mr. "Higinbothom, founded on the facts which are at present known" to you, and altogether independent of the statement which may be made by Mr. Brown, but which "you inform "their Lordships will, no doubt, augment the number and decisive character of the facts con-"nected with this subject."

Having, however, proved by the explanations which I then gave, and the written evidence which I furnished, that you had laboured under an entire misapprehension, that the statements which you assailed were strictly accurate, and that, if those statements had any such effect in regard to Mr. Brown, as that which you had intimated, it was not owing to the spirit in which they were written, but to the evidence of facts which did not admit of contradiction, I am surely, in common justice, entitled to request that you will at once withdraw the charges that have been made against me, and that you will candidly acknowledge that you were erroneously informed.

Charges, such as those in question, should not, as I venture to submit, ever have been made against one of your subordinate officers, without the clearest possible evidence that they were well founded, nor without affording him some opportunity of giving explanations upon points as to which misconception may have existed. Having been made, however, and having now been shown to be entirely without foundation, I do most respectfully, but at the same time most firmly repeat my request, that you will withdraw the injurious expressions with which you have associated my name.

If you should still hesitate to adopt this course, I have no alternative but to leave my case in the hands of the Lords of the Treasury, by whose decision I shall willingly abide.

I have, &c.
(signed) *N. Higinbothom.*

To the Right Hon. T. F. Kennedy,
&c. &c. &c.

Enclosure No. 1.

I, William Liming, of Holt Pound Gate, in the county of Hampshire, do solemnly and sincerely declare, that being the woodman of Great Lodge Inclosure, in the Forest of Alice Holt, I have read that part of Mr. Brown's Report, of the 12th March 1853, in which he states

states that "a portion of this inclosure, situated on the north and west sides of the lodge, to "the extent of about 150 acres, is under oak of 40 years of age. The crop has been much "over-thinned of late, there being only, on an average, 160 trees to the acre, while there "ought to be 200, and, from measurements, I found these to have a medium diameter of "seven inches, at six feet from the ground;" and that I have measured 16 acres, which were, at the time of Mr. Brown's visit, in November 1852, the thickest portion of the part of the inclosure above referred to; and that I found on those 16 acres, by counting the trees, and also the stools in the Eight Acre Piece, which was thinned last year, that there were less than 100 trees on the acre, at the date of that visit, and that I have ascertained by measurement of the trees (not being in the portion thinned last year), that the average diameter exceeds 10 inches; and I further declare that I have read that portion of Mr. Brown's said Report, in which, referring to the crop of oak in the remainder of this inclosure, he states, that "on "some parts, where the land is very good, the trees average six inches in diameter, at six feet "from the ground, and of these there are 200 on the acre;" and that I have measured five acres of the land so referred to, and found on an average 127 trees to the acre, with an average diameter of eight inches; and I also declare that no Scotch-pines have been cut in this inclosure, since the date of Mr. Brown's visit in November 1852. And I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of an Act made and passed in the sixth year of the reign of his late Majesty King William the Fourth, intituled, "An Act to repeal an Act of the present Session of Parlia- "ment, intituled, 'An Act for the more effectual Abolition of Oaths and Affirmations taken and "made in various departments of the State, and to substitute Declarations, in lieu thereof, "and for the more entire suppression of voluntary and extra-judicial Oaths and Affidavits, and "to make other provisions for the abolition of unnecessary Oaths.'"

(signed) *William Liming.*

Declared 28th day of February, 1854,

Before me,

(signed) *J. W. G. Spicer,*
Magistrate for the County of Surrey.

Enclosure No. 2.

I, James Spier, of Old Close Cottage, in the county of Hampshire, do solemnly and sincerely declare, that I am 57 years of age, and have worked in Holt Forest, at different times, since I was 10 or 12 years old, and that I have been woodman of the Straights and Goose Green Inclosures for 27 years. And I further declare, that I assisted in planting several of the inclosures, and that the following statement shows, to the best of my belief, the number of acres where Scotch-pines were planted as nurses with the oaks in the under-mentioned inclosures, viz.:

Straights Inclosure - - - -	No nurses ever planted with the oak, but a few larch were put in about 40 acres, to kill the underwood, some years after the oak was planted, and about 150 Scotch-pines in the same manner.
Great Lodge Inclosure - - -	40 acres.
Glenbervie Inclosure - - -	180 acres.
Willow Green Inclosure - - -	80 acres were planted with oak, larch, and Scotch-firs indiscriminately, as a crop, and as nurses.
Goose Green Inclosure - - -	3 acres.
Abbot's Wood Inclosure - -	No nurses planted.

And I further declare, that I have read that portion of Mr. Brown's Report, of the 12th March 1853, in which he refers to part of the Straights Inclosure, in the following terms: "In the neighbourhood of the woodman's lodge, there are about 130 acres of the land com- "paratively dry; here, there are 180 trees on the acre, 40 years of age, with an average "diameter of eight inches, at six feet from the ground;" that I have measured and counted the trees on six different acres of the land so referred to, which several acres contain a fair average in number and size of the trees of 40 years of age, and that I found thereon less than 100 trees to the acre, with an average diameter of 10 inches, at six feet from the ground. And I further declare, that only three Scotch-pines (which were never planted as nurses) have been taken out of this inclosure since Mr. Brown's visit in November 1852, and that, at the present moment, there are only 14 Scotch-pines in this inclosure, none of which were ever planted as nurses, most of them having been self-sown, and the rest planted for ornament by the sides of rides, &c. I further declare, that I have read that portion of Mr. Brown's Report, of the 12th March 1853, in which he refers to a portion of Goose Green Inclosure, in the following terms, viz.: "That portion of this inclosure which, on the plan of the forest, is marked as the Freehold of the Crown, and which extends to 42 A. 0 R. 1 P., is under a very promising crop of oak, about 40 years of age; there are 180 trees on the acre, and these have an average diameter of eight inches, at six feet from the ground;" that I have measured and counted the trees on two acres of this land, which contains a fair average in number

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number and size of the trees on the portion of this inclosure above referred to, and that I found less than 100 trees thereon, with an average diameter of 10 inches, at six feet from the ground; and I further declare, that there have been no nurses left standing in this inclosure for 13 years, and that the Scotch-pines (13 in number) and spruce-firs now standing, are not nurses, but fill a space by the side of a road, which would otherwise have been vacant, and stand for ornament by the road-side, and at a gate near the foreman's cottage. And I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of an Act made and passed in the sixth year of the reign of his late Majesty King William the Fourth, intituled, "An Act to repeal an Act of the present Session "of Parliament, intituled, 'An Act for the more effectual abolition of Oaths and Affirmations "taken and made in various departments of the State, and to substitute Declarations, in lieu "thereof, and for the more entire suppression of voluntary and extra-judicial Oaths and 'Affidavits, and to make other provisions for the abolition of unnecessary Oaths.'"

(signed) *James Spier.*

Declared 28th February, 1854,
Before me,
(signed) *J. W. G. Spicer,*
Magistrate for the County of Surrey.

Enclosure No. 3.

I, JOHN BROOMFIELD, of Glenbervie Lodge, in the county of Hampshire, do solemnly and sincerely declare, that I am 33 years of age; that I am one of the woodmen of Alice Holt Forest, and have lived in the forest all my life; that I have read that portion of Mr. Brown's Report, of the 12th March 1853, in which he states, referring to Abbot's Wood Inclosure, that "on a considerable extent, there are about 160 trees to the acre;" and that I measured, with a chain, one acre here of average appearance as to the number and size of the trees, and that I found about 100 to the acre, with an average diameter of nine inches, at six feet from the ground. And I further declare, that I have read that portion of Mr. Brown's Report, of the 12th March 1853, in which, referring to the Glenbervie Inclosure, he states that "the "trees on these 300 acres vary very much, both in respect to the number per acre, and the "diameter of their stems; where the land is a good loam and dry, they average 180 per "acre, with an average diameter of about seven inches;" and that I have measured seven acres on the portion of the inclosure so described by Mr. Brown, and found, on an average, about 100 trees to the acre, with an average diameter of eight inches, at six feet from the ground. I further declare that no nurses have been left for the last 13 years in Great Lodge and Willow Green Inclosures, nor for the last 12 years in Glenbervie, and that the few Scots-pines now standing in these plantations are not nurses (many of them having been self-sown), but are principally ornamental trees, situated at gates, and by the sides of the roads and fences. And I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of an Act made and passed in the sixth year of the reign of his late Majesty King William the Fourth, intituled, "An Act to repeal an Act "of the present Session of Parliament, intituled, 'An Act for the more effectual Abolition "of Oaths and Affirmations taken and made in various departments of the State, and to "substitute Declarations, in lieu thereof, and for the more entire suppression of voluntary "and extra-judicial Oaths and Affidavits, and to make other provisions for the abolition "of unnecessary Oaths.'"

(signed) *John Broomfield.*

Declared 28th February, 1854,
Before me,
(signed) *J. W. G. Spicer,*
Magistrate for Surrey.

Enclosure No. 4.

I, WILLIAM EADE, of Holt Pound, in the county of Hants, do solemnly and sincerely declare, that I am 58 years of age, and assisted in planting Holt Pound Inclosure, in Alice Holt Forest; that, to the best of my knowledge and belief, nurses were not planted over more than 40 acres, and that the last of these were taken out at least 14 or 15 years ago. And I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of an Act made and passed in the sixth year of the reign of his late Majesty King William the Fourth, intituled, "An Act to repeal an Act of the present "Session of Parliament, intituled, 'An Act for the more effectual abolition of Oaths and "Affirmations taken and made in various departments of the State, and to substitute "Declarations, in lieu thereof, and for the more entire suppression of voluntary and extra-"judicial Oaths and Affidavits, and to make other provisions for the abolition of unne-"cessary Oaths.'"

(signed) *William Eade.*

Declared 28th February, 1854,
Before me,
(signed) *J. W. G. Spicer,*
Magistrate for the County of Surrey.

Alice Holt and Woolmer Forests.

Mr. Brown's Reports.

Enclosure No. 5.

I, THOMAS LIMING, of Goose Green Cottage, in the county of Hants, do solemnly and sincerely declare, that I accompanied Mr. Brown and Mr. Sowray in their inspection of the Forest of Alice Holt, on the 19th and 20th ult.; that, in the portion of Great Lodge Inclosure, where the trees are 40 years of age, they made but one measurement of a quarter of an acre (which spot I subsequently pointed out to Messrs. Spicer, Fuller, and Davison), and that they made other measurements in places where the trees were less than 40 years of age, which fact I intimated to Mr. Brown, at the time; and I also declare that, in the Straights Inclosure, Mr. Brown and Mr. Sowray made two measurements, each of a quarter of an acre, in places where the trees are not 40 years of age; and I subsequently, in company with James Spier, John Broomfield, and William Liming, woodmen, measured, with a chain, two separate acres, so as to include in each parcel one of the quarter acres stepped by Messrs. Brown and Sowray, and that I found on one of such acres 111 trees, and on the other 150; and that in Goose Green and in Abbot's Wood Inclosures, Messrs. Brown and Sowray, in each inclosure, made two measurements of a quarter of an acre each, and that I pointed out to Messrs. Spicer, Fuller, and Davison both the places in the former where those measurements had been made, and also indicated to them one of the sites of such measurements in Abbot's Wood, and that I measured one acre so as to include the other quarter acre stepped by Mr. Brown and Mr. Sowray in the last-named inclosure, and found 166 trees thereon; and I further declare, that I remember Mr. Brown's visit to the forest, in November 1852, and that, to the best of my knowledge and belief, he never made any allusion to the length of time which had elapsed since the nurses were removed, or that he made any reference to them at all; nor did I inform him, as he alleges, that, eight or ten years ago, there were a considerable quantity of nurses in all the inclosures. As regards the conversation which took place between Mr. Brown and myself, on the subject of nurses, in the month of January last, I can declare that what I stated to Mr. Brown was to the following effect, viz., that when Mr. Wise and Mr. Philipps were deputy-surveyors, there were many nurses in Glenbervie Inclosure, but that an immense number were removed by the latter gentleman, and the residue were taken out within the first three or four years of Mr. Higinbothom's arrival; and I particularly pointed out to Mr. Brown, the present healthy and thriving state of the crop, as a clear and convincing proof that the nurses had been removed in sufficient time to prevent the spoiling of the oaks; and, further, that the nurses remaining at the time of Mr. Higinbothom's arrival in the forest in Great Lodge, Holt Pound, Straights, and Willow Green Inclosures, were removed almost immediately afterwards, and those in Glenbervie within three or four years of that time. And I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of an Act made and passed in the sixth year of the reign of his late Majesty King William the Fourth, intituled, "An Act "to repeal an Act of the present Session of Parliament, intituled, 'An Act for the more "effectual abolition of Oaths and Affirmations taken and made in various departments of "the State, and to substitute Declarations, in lieu thereof, and for the more entire sup-"pression of voluntary and extra-judicial Oaths and Affidavits, and to make other pro-"visions for the abolition of unnecessary Oaths.'"

(signed) *Thomas Liming*, Foreman.

Declared before me,

(signed) *J. W. G. Spicer*,
Magistrate for the County of Surrey,
28th February, 1854.

Enclosure No. 6.

Dear Sir, 25 February, 1854.

IN compliance with your request, we made a minute examination of several of the inclosures in Alice Holt Forest, on the 18th instant, with the following result.

GREAT LODGE.

We inspected the portion of this inclosure, stated, in Mr. Brown's Report of the 12th March 1853, to be situated "on the north and west sides of the lodge," and also, "to be under oak of 40 years of age," being the spot where he alleges, in that Report, that there are "160 trees on the acre," and in his second Report, of the 10th February last, that there are 186 trees on the acre. We measured off, with a chain, one acre of this ground (selected by ourselves, and which appeared to us to represent the average growth of the part of the plantation above described by Mr. Brown), and found thereon less than 100 trees, with an average diameter, at six feet from the ground, of 10½ inches.

We then proceeded to the spot which was pointed out to us by the foreman, where Mr. Brown and Mr. Sowray had stepped a quarter of an acre, in January last. We measured off an acre, with the chain, so as to include the quarter acre stepped by Mr. Brown, and we found thereon considerably less than 100 trees, with an average diameter of 10¾ inches, at six feet from the ground.

Alice Holt and Woolmer Forests.

Mr. Brown's Reports.

Straights.

We inspected the portion of this inclosure, referred to in Mr. Brown's Report of the 12th March 1853, in the following terms: "In the neighbourhood of the woodman's lodge, "there are about 130 acres of land, comparatively dry; here, there are 180 trees to the acre, "40 years of age, with an average diameter of eight inches, at six feet from the ground, and "of a promising, healthy character."

Having selected a piece of ground which appeared to us to represent the average growth of this part of the plantation, we measured an acre with the chain, and found less than 100 trees thereon, with an average diameter of $10\frac{1}{3}$ inches, at six feet from the ground.

Goose Green.

We inspected the portion of this inclosure referred to in Mr. Brown's Report of the 12th March 1853, in the following terms: "That portion of this inclosure which, in the "plan of the forest, is marked as the Freehold of the Crown, and which extends to "42 A. 0 R. 1 P., is under a very promising crop of oak, about 40 years of age; there are 180 "trees on the acre, and these have an average diameter of eight inches, at six feet from the "ground." We selected a piece of ground, which appeared to us to represent the average growth of the plantation, and having measured an acre with the chain, we found less than 100 trees thereon, with an average diameter, at six feet from the ground, of $10\frac{1}{2}$ inches.

The foreman then pointed out to us the two particular places where Mr. Brown and Mr. Sowray had made measurements, by stepping a quarter of an acre in each spot, which measurements Mr. Brown has stated, in his Report of the 10th instant, gave a result of 164 trees to the acre, with an average diameter of seven inches. On a glance at the place where these two quarter acres had been selected, it was at once apparent that the crop, in that particular place, was not "40 years of age," but that it consisted partially of young trees; and, on inquiry, we ascertained that some large old timber-trees had been taken out from various places in about two acres of this plantation about 25 years ago, and that the vacancies had afterwards been filled up with a number of young trees. We observed that one of the quarter acres so stepped by Mr. Brown and Mr. Sowray, was in the very thickest part of the spot where these young trees had been planted, and we measured an acre with a chain, so as to include this particular quarter acre, being the thickest spot in the whole of this part of the plantation, and we found thereon 144 trees. We have no hesitation in stating our belief, notwithstanding the existence of the young trees on these two acres, that the statement made in your Report of the 20th December last, that the average number of trees throughout the whole of the freehold-land, containing 42 acres, is less than 100 to the acre, and that their average diameter is 10 inches, at six feet from the ground, is strictly and entirely correct.

Abbot's Wood.

The foreman indicated to us the spot where Mr. Brown and Mr. Sowray, in January last, had stepped, and counted the trees on a quarter of an acre, and where Mr. Brown states, in his Report of the 10th instant, that he found 240 trees to the acre. We measured, with a chain, one acre, so as to include the quarter acre in question, and found thereon 208 trees.

This locality was by no means the best part of the plantation, and the trees, being young, stood more closely together than in many other places where they were larger and older.

In consequence of the lateness of the hour, we were prevented from continuing our examination of the forest; but we think it right to state that, on the four inclosures which we carefully inspected on this occasion, we found the statements contained in your Report of the 29th December last, as to the average number of trees to the acre, and their average diameter, were in every instance correct, and that the statements to the contrary contained in Mr. Brown's Report of the 12th March 1853, and alleged by him, in his further Report of the 10th instant, to have been established by the measurements taken by him in the preceding month, are not in accordance with the facts; and any person accustomed to the management of woodlands would, on an inspection of these plantations, at once perceive that such was the case.

We have frequently had occasion to notice these plantations, and we can certify, from our general knowledge of them, independently of our recent inspection, that they have been thinned with proper care and attention, and that the crop is in a most thriving condition.

As to the want of drainage, which Mr. Brown states is evidenced by there being a growth of rushes and strong grass, we can certify that, except on the banks of the watercourses, where rushes will grow in spite of any drainage, we found but very slight traces of aquatic plants of that description. The growth of rough grass is no proof of wetness of this kind of soil, as in our experience we find that it will grow on this land when under wood, however well it may be drained, unless the herbage is eaten down with cattle.

It

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Mr. Brown's Reports.

It is useless to dwell further upon the opinions expressed in Mr. Brown's Reports, because an inspection of the forest would convince any impartial person, accustomed to the management of oak-plantations, that the charges preferred against you of having, in your Report of the 29th December, wilfully concealed and perverted the truth, in correcting Mr. Brown's estimates of the number and sizes of the trees, are entirely without foundation, and that the general charges brought against you of mismanagement and neglect, are at once refuted and demolished, by the present healthy, thriving, and generally well-managed appearance of the plantations in Alice Holt Forest.

We remain, &c.
(signed) *C. Davison.*
N. J. Fuller.
J. W. G. Spicer.

Enclosure No. 7.

My dear Sir,

Farnham, 14 February, 1854.

Having read your observations upon Mr. Brown's Report on the state of Alice Holt Forest, and also Mr. Kennedy's letter upon your communication, I became acquainted with the chief points at issue between the Reports of yourself and Mr. Brown, so that, when I inspected the several plantations in the Holt Forest, in company with Sir A. K. Macdonald and Mr. M. Marshall, on the 11th, I was enabled with them to express my positive belief that the declarations of the woodmen were strictly true. Neither do I think it possible that we could have been deceived in our observations, as the facts upon which you grounded your Report are most manifest, and easily susceptible of proof, and as such were verified by us. In our opinion, therefore, your Report ought to be characterized as a manly, honest, and straightforward exposition of the truth, instead of being stigmatized as "deceptive, "fraudulent, and untrue." Our confirmation of the woodmen's declarations, render any further remarks, on this point, superfluous.

As I live in the immediate neighbourhood, as some of my land adjoins the forest, and as I have had, through my agents, extensive dealings in the purchase of wood, poles, timber, &c. from the plantations, I can most conscientiously state that I believe you have always exerted yourself to the utmost in obtaining the highest prices for the products of the forest. I have also personally noticed, during the period of your superintendence, that the fences have been properly kept up, and the drains regularly cleared out, while the land, in my opinion, has been sufficiently drained for the growth of timber; and I do honestly consider your general management to have been both judicious and effective.

My impression of the present state of the Holt Forest is, that, as a whole, the trees are in a healthy and flourishing condition (the excepted portions not being attributable to recent management), and that they exhibit signs of a careful attention to the thinning; and I think the trees will require, for many years to come, an annual or biennial thinning out, similar to that which you have been accustomed to pursue, if good and large timber fit for naval-purposes is ultimately to be produced.

I have written this letter to you, because I believe that the interests of the Crown have been both ably and faithfully promoted, since you have had the superintendence of these forests, and because I consider that your character has been most unjustly assailed.

N. Higinbothom, Esq.

Believe me, &c.
(signed) *J. Manwaring Paine.*

Enclosure No. 8.

Dear Sir,

Greywell, near Odiham, Hants,
17 February, 1854.

I have, for several years, had an opportunity of seeing the manner in which you have the woods thinned in Alice Holt Forest; and, on Tuesday last, I made a survey of the inclosures, from which I am more than ever convinced that it has been most judiciously done.

I consider them, with very few exceptions, in a most thriving condition, particularly in the Goose Green and Straights Inclosures. The younger plantations in the Straights, now require thinning on the south and south-west sides. The young plants there, are looking healthy and well, the soil being most particularly adapted for the growth of oak.

From long experience, I am convinced that oak is generally left too thick on the land; as, for argument, one tree of 50 feet will be worth very much more in value for naval-purposes than two of 25 feet. I must further observe that, when left for timber, there should not be more, in my opinion, than 40 or 50 on an acre of ground. For, if an oak has not room to spread its branches, it will not enjoy itself; for, when left thick, they will become stunted, make no progress, and consequently will never become timber of large growth.

To the opinion I have expressed above, as to the necessity of thinning oak-plantations pretty closely, I may perhaps add, that no person with the slightest knowledge of the

 requirements

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requirements of oak-trees, of 40 years of age, would assert that there ought to be 200 on the acre of land, like that in the Alice Holt Forest. Such an assertion only shows ignorance of the subject, on the part of the person who attempts to lay down such an axiom.

Mr. Brown's Reports.

As to the drainage in the forest, I can confidently state that it is ample in quantity, and perfectly efficient.

It is needless, however, to say more on that point, because the thriving condition of the plantations is sufficient proof, to any person in the slightest degree conversant with the subject, of the entire groundlessness of any assertion to the contrary.

I am, &c.

N. Niginbothom, Esq. (signed) *William Mulford.*

Enclosure No. 9.

Woolmer Lodge, Liphook,

My dear Sir, 13 February, 1854.

I FEEL greatly obliged to you, for having given me an opportunity of seeing the Holt Forest on Saturday last, and of hearing from yourself, in detail, the system upon which it is managed. I have seen some of the most thriving young oak-woods, in different parts of England, under the care of Scotch foresters; but, if I were asked to recommend a woodman, I should certainly take the liberty of applying to you for a man brought up under your experienced eye. It appeared to me that nothing could possibly be better managed than the forest which you so ably superintend.

I am, &c.

N. Higinbothom, Esq. (signed) *A. K. Macdonald.*

Enclosure No. 10.

Dear Sir, Woodbridge, Guildford, 11 February, 1854.

I SHALL be very glad to receive a copy of the Report in which you defend your conduct as manager of the Holt Forest against the charges, of which you speak in your note of yesterday, and I promise you to give my best attention to your statement of your case; and, if I find that you had been unjustly assailed, to do my best to set you right in the opinion of the Government and of the public.

Of the nature of the charges that have been advanced against you, I know nothing; and of the way in which you have discharged some parts of your duty, as, for example, the receipts and disbursements, the accounts and the correspondence of your office, I am necessarily quite ignorant; but, of what I do know, I can speak with the confidence of an eye-witness, who, having managed for many years the considerable copses and plantations belonging to my family in Wanborough, and the adjacent parishes, has some acquaintance with the management of property of that description. I have walked a good deal of late years about the Holt Plantations, and I can truly assert that I never saw young timber more thriving, nor, apparently, better attended to, and protected; the fences and the ditches for draining being kept in excellent condition and very clean, and the whole concern shows manifestly, to my eye, that it is intelligently and vigilantly superintended by one who knows his business.

I do you no more than bare justice to bearing this testimony to what I have seen and know of the results of your superintendence of the Holt Forest,

And remain, &c.

N. Higinbothom, Esq. (signed) *R. D. Mangles.*

Enclosure No. 11.

My dear Sir, Godalming, 25 February, 1854.

IT was with much pleasure I went over the several inclosures constituting Alice Holt Forest on the 11th inst., and, after a careful examination, added to my previous knowledge of the age, growth, and general appearance, I can, without hesitation, give you my opinion of the plantations in this forest under your management.

The first part to which I gave my attention was that in the Great Lodge Inclosure, 40 years of age. The most of this has attained a good size, and may be considered to have grown unusually quick, and the appearance and health of the trees is good, and, generally speaking, the timber of this age will require to be thinned shortly.

I cannot agree with Mr. Brown that there should be 200 trees per acre found in this part, as even now, in almost every instance where I directed my attention, I found the heads of the trees getting close into one another.

Mr.

Alice Holt and Woolmer Forests.

Mr. Brown's Reports.

Mr. Brown, in stating that 200 trees should be found per acre here, must have overlooked the important fact that this forest was planted for the growth of large navy-oak, not for general commercial purposes.

I have never yet been convinced that any settled rule could be arrived at, as to the number of trees an acre should grow, so much depends upon the soil and character of timber to be grown; but this is quite certain, in order to grow trees that may hereafter become valuable to our Government for their dockyards, the trees, when young, must have plenty of room to form heads and lateral boughs, which hereafter will be so valuable for the "knees and "compass-timbers of our ships."

If 200 trees, of 40 years' growth, are to be found on an acre, I may confidently assert that no such timber will be found in the forest.

I think it right to state to you, that I observed that you had, throughout this and the other inclosures, given much attention to the formation of the trees. When the trees were crooked and forming good lateral boughs, you had taken trees away around them, allowing them to form good heads, and to thicken in these boughs; and, in other places, where the trees had formed long straight stems, you had judiciously left them standing thicker and closer together, to be thinned hereafter, as circumstances may require.

As regards the spots recommended to be cleared and grubbed, I agree with Mr. Brown, to a certain extent; but these spots were planted in error, in the first place. The situation and soil were never adapted at all to the growth of oak, and under no management could a good set of oak-tellers be expected.

But the portion of the Straights Inclosure which Mr. Brown recommends to be grubbed, would, in my opinion, be bad policy to adopt such a course, as the tellers generally look exceedingly healthy, and will now grow rapidly, I have no doubt.

I consider the drains are quite sufficient for the growth of oak, as those now in the several inclosures are in good working-order. I have seen many instances of the growth of oak-copses being entirely checked from the cutting of additional drains; and, as the general appearance of your forest is healthy and good, I see no good to result from any additional expenditure on this head.

I have read Mr. Brown's book, "The Forester," and notice his recommendations for saving oak-tellers. *See* fols. 390 to 402.

His mode of cutting and clearing the tellers and trees of their boughs, and getting them to the roads, and also his extraordinary way of taking off the bark.

Having had considerable experience, I think I may make the following remarks upon the above three recommendations:—

Firstly. Cutting the trees down by his mode, would waste the very best bark, and that which weighs so heavily, and is so highly esteemed by the tanners, would be entirely lost.

Secondly. Clearing the trees of their boughs, and carrying them to the roads.

A most expensive mode, entailing a further waste of bark, as no boughs should be cut off the trunk, until they are first stripped of their bark.

Thirdly. Barking the trees.

The mode recommended, viz., hammering with malls and flat stones. This would be ruinous to the appearance and value of the bark, and no London tanner would give so much by 30*s.* to 40*s.* per ton for it as if taken off and done by our usual and customary plan; in fact, Mr. Brown's plans are much more costly, less expeditious, more hazardous in drying, and totally to be disregarded here in the south, where barking is so well understood.

I would ask Mr. Brown, why the Scotch tanners are so desirous to get hold of south-country bark?—mainly, from the better plan adopted in cutting, barking, drying, and getting to market than that adopted with them.

I have also read that portion of the "Forester," pages 9 to 21, under the head of the "Value of Wood" as a crop upon land.

Having had the experience and judgment of my poor father for so many years, and knowing he ranked the wealds of Surrey, Sussex, and Hampshire as the best-managed woodlands in the United Kingdom, I have to remark, that the figures and net rentals, under the several heads of,—

"Net Product of an Acre of Woodland,"
"Ditto - - ditto - - Oak,"
"Ditto - - ditto - - Hardwoods,"
"Ditto - - ditto - - Larch,"

appear to me to be fabulous, and such as I can safely assert none of the landowners in the district mentioned have ever received.

I have read also that portion of the "Forester" (section 6, page 426), "Periodical Increase of Timber" in the different species of forest-trees.

Alice Holt and Woolmer Forests.

Mr. Brown's Reports.

I know no plantations, of either larch or Scotch, which have attained the growth Mr. Brown quotes, at 40 years of age. I have also had the opinion of some of the best judges of plantations and their growths.

I am, &c.
(signed) *Murray Marshall.*

P. S.—I may add, that I should have given the foregoing opinions upon Mr. Brown's remarks upon your forest with more diffidence, but for my extensive practice for many years both as a timber-merchant (having supplied large quantity of timber for navy-purposes), as well as having the management of woods and plantations for my family in the counties of Surrey, Sussex, and Kent.

N. Higinbothom, Esq.

Enclosure No. 12.

Dear Sir, Godalming, 21 February, 1854.

I BEG to say that I have known the Holt Forest for more than 20 years, and, during that time, have frequently ridden through it, and have noticed your management of the plantations, and, at your request I again, last week, made a more minute inspection of them. First, as regards the statement made by Mr. Brown as to the number of trees on an acre, more particularly where they are 40 years' growth, I can with confidence state that any person at all acquainted with the growth of timber, upon an inspection of the several localities referred to by Mr. Brown, would at once detect their entire inaccuracy.

If the trees of this age stood 180 or 160 on the acre, it would be utterly impossible they could be in such a healthy, vigorous state as those now standing in the Holt plantations, or that they would ever be of the slightest use as navy-timber, as it would be impossible that number could grow to the size required. I can also confidently affirm, I never saw young of the same age with better heads or bodies, or more likely to make fine timber. As to the terms "stunted, bark-bound, and drawn-up, without heads," no one who has had any experience with young timber can apply them to such as are growing in the Great Lodge, and other plantations in the Holt Forest. It is perhaps unnecessary for me to express my opinion that the trees have been thinned with proper care and attention, particularly as to their future use as navy-timber, because the flourishing condition of the crop is the best answer that can be given to an assertion to the contrary. I was particularly struck with that part of Mr. Brown's Report, in which he proposes to grub and replant with larch-fir about 100 acres in the Straights plantation, which is as contrary to my opinion as it is possible to be; the greater part of it, not all the 100 acres, are covered with young oak as kind and likely to make good navy-timber as any you have in the forest.

The drains and ditches in the forest, I consider are quite as much as are required for the healthy growth of timber, and any more, I think, would be only a useless expense. I do not at all agree with Mr. Brown in the quantity of bark you will be able to cut in the next five years; I think, if you cut that quantity, you will find you have not nearly so many trees as you require on an acre. Most of your plantations require but very little more thinning for the next four or five years.

Yours, &c.
(signed) *J. T. Hull.*

P. S.—Having been a timber-merchant for many years, I have had ample opportunities, and have taken great delight in the growth of oak-timber, and especially that adapted for navy-purposes, as I have always supplied a considerable quantity for the dockyards.

(signed) *J. T. H.*

Enclosure No. 13.

My dear Sir, 22 February, 1854.

You are quite right when you say "you have known our forest a great many years," for, in my younger days, I spent much of my time with one of your predecessors, Mr. Wise, and I recollect his telling me he had tried, as an experiment, planting Scotch-firs, by way of nurses, to the young oak, in parts of some of the inclosures; and, in answer to your question, when these trees were cut away, I should say, to the best of my recollection, they disappeared very shortly after you came, for, upon my making your acquaintance, which was not until you had been at the Holt a couple of years, or thereabouts, I missed these old friends, and in further corroboration, if I mistake not, I employed some of our parish-men to grub the roots of these firs, as firewood, which they did by your permission.

I have no doubt that, if you require further evidence as to the removal of the Scotch-nurses at the time I state, you may find plenty, for I feel certain the circumstances took place within three or four years after your arrival in the forest.

N. Higinbothom, Esq.

I am, &c.
(signed) *C. Davison.*

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Mr. Brown's Reports.

No. 26.

My Lords, Office of Woods, &c., 1 March, 1854, 12 o'clock.

ADVERTING to a communication which was addressed to me, on the 25th of February, by desire of Mr. Wilson, expressing a desire to be furnished, at the earliest period, with a further expected Report from Mr. Higinbothom on Mr. Brown's second Report respecting Alice Holt Forest, I beg leave to acquaint your Lordships that a Report from Mr. Higinbothom, dated the 28th of February, accompanied by 12 enclosures, has reached this office this morning, and I beg leave to transmit the same, in original, at once to your Lordships, in order to give effect to the wish expressed in Mr. Arbuthnot's note of the 25th.

In doing so, I beg leave to state that, under the circumstances, I have, of course, retained no copy of Mr. Higinbothom's Report, or of the accompanying documents, nor have I had time to peruse the same, further than to see that Mr. Higinbothom's Report is intended to be a very decided answer to Mr. Brown's statements, and consequently it will rest with Mr. Brown, when he shall have perused the documents now furnished, to make such further statement as he may think proper. It is right that I should acquaint your Lordships, that I have reason to believe that Mr. Brown proposes to reach London with his family to-morrow, on his way to Dean Forest, where he wished to arrive on Friday; but it will, no doubt, be desirable that some course should be decided upon, with reference to the controversy respecting Alice Holt Forest, before Mr. Brown leaves London.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Honourable the
Lords Commissioners of Her Majesty's Treasury.

No. 27.

Sir, Office of Woods, &c., 2 March, 1854.

I HAVE the honour to annex, for your information, copy of a letter which I yesterday addressed to the Lords Commissioners of Her Majesty's Treasury, transmitting to their Lordships copy of a Report by Mr. Higinbothom, dated the 28th of February, in reply to Mr. Brown's second Report on Alice Holt Forest, dated the 10th of February.

I think it incumbent upon me to lose no time in stating to you my humble opinion that the subject cannot be allowed to rest where it is, on the decidedly conflicting statements of Mr. Brown and Mr. Higinbothom, and that, in justice to both parties, it will be necessary that the strictest and most impartial inquiry should be instituted. I have seen Mr. Brown this day, who has necessarily had no opportunity of seeing, or knowing, the contents of Mr. Higinbothom's Report of the 28th February; but I am requested and authorized by him to state, that he is prepared to abide by the statements of fact contained in his Report of the 10th of February, and earnestly requests that there may be afforded to him an opportunity of proving the statements of fact which he has there made, before an impartial and competent tribunal.

It seems to be clear, that all matters of opinion and of a speculative character, ought to be set aside, and that an inquiry ought to be confined to matters of fact, which, from their nature, are susceptible of proof in the affirmative, or in the negative, as it is in reference to matters of fact alone, that the credit of the respective parties is involved.

I must take the liberty of adding my earnest request that such an inquiry may be instituted, in such manner as shall be unobjectionable to either party, in order that the matters of fact, in question, may be established on a sure and certain basis.

I am aware that some difficulty may exist in constituting a tribunal of this kind, but still it seems to me that it is quite possible so to do. It would seem that, to constitute an unobjectionable tribunal, the persons composing it must be absolutely impartial, from having had no connexion with previous discussions, or with the parties, or their friends, and that they should have a highly competent knowledge of rural affairs, and, if possible, be in some degree in a professional position, from which they may possess an acquaintance with the subject in question. I have the most perfect belief that you will pronounce a just decision on this subject; but, if I may venture to offer any opinion as to the class of persons who would form a competent tribunal, I will annex, for your consideration, a list of 12 persons, any three of whom, it seems to me, would constitute an unobjectionable tribunal for the ascertainment of the facts in question. Of these 12 gentlemen, there are 10 with whom I have no acquaintance whatever, and whom I have never even seen, but of whose characters and position in life I have heard; and, with respect to the two gentlemen whose names stand at the head of the list, any observations from me with respect to their high station in life, is uncalled for.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Hon. the Chancellor of the Exchequer.

Alice Holt and Woolmer Forests.

Mr. Brown's Reports.

List of Persons submitted for the Chancellor of the Exchequer's consideration.

Sir Joseph Paxton.
Professor Lindley.
Mr. Bailey, Nuneham, Oxfordshire.
Mr. Bright, steward to Lord Hatherton, Teddesley, Staffordshire.
Mr. Bennett, steward to the Duke of Bedford, Woburn Abbey.
Mr. Stewart, steward to the Duke of Sutherland, Trentham.
Mr. Henderson, steward to the Earl of Carlisle, Castle Howard.
Mr. Robertson, steward to the Duke of Argyle, Inverary.
Mr. M'Corquodale, forester to the Earl of Mansfield.
Mr. M'Leish, forester to the Duke of Northumberland, Alnwick Castle.
Mr. Wilson, forester to the Duke of Norfolk.
Mr. Gardiner, forester to Lord Hill.

No. 28.

Sir, Downing-street, 3 March, 1854.

I am directed by the Chancellor of the Exchequer to acknowledge the receipt of your communication, dated March 2d, which will not fail to receive his attentive consideration.

I have, &c.

The Right Hon. T. F. Kennedy. (signed) *Francis Lawley.*

No. 29.

Sir, Treasury Chambers, 7 March, 1854.

I am directed by the Lords Commissioners of Her Majesty's Treasury, to acquaint you, that the Chancellor of the Exchequer has communicated to this Board the letter addressed to him by you, bearing date the 2d instant, suggesting that an inquiry may be instituted regarding the conflicting statements of Mr. Brown and Mr. Higinbothom, with reference to the management of Alice Holt and Woolmer Forests.

I have to state that, as both Mr. Higinbothom and Mr. Brown have now been afforded full opportunity of making statements, in support of their assertions on the matters of fact in dispute between them, and, as the same observation also applies to the charges brought against the former gentleman by you, their Lordships must consider the correspondence on the subject as closed.

I am to add, that their Lordships concur with you in opinion that the question has assumed a shape affecting immediately the personal credit of the parties concerned, and that all matters of opinion and speculation must be set aside, until a judgment has been formed on the facts in dispute; but, as my Lords have already taken steps with a view to such a course of proceeding, they do not think it necessary to make any observation on your suggestion for a reference of the case to a tribunal to be selected from the list of names appended to your letter.

I am, &c.

The Right Hon. T. F. Kennedy. (signed) *James Wilson.*

No. 30.

My Lords, Office of Woods, &c., 23 March, 1854.

I am most desirous to refrain from giving further trouble to your Lordships, on the subject of the controversy which has arisen respecting Alice Holt Forest, and the conflicting statements, in point of fact, as put forward by Mr. Higinbothom and Mr. Brown respectively; and I should unquestionably have abstained from making this communication, had I not felt that, unless I made one additional statement at the present time, future serious inconvenience might arise from my silence.

I beg leave to refer to the letter I addressed to the Chancellor of Exchequer, on the 2d instant, proposing an inquiry, and suggesting materials from which a competent and impartial tribunal might be created. The Chancellor of the Exchequer was so good as to intimate to me, by Mr. Lawley's letter of the 3d instant, that my communication should receive his attentive consideration; and I subsequently received a letter from Mr. Wilson, by command of your Lordships, dated the 7th instant, acquainting me that my letter of the 2d instant, had been communicated to the Board of Treasury.

Not

Not having as yet received any further communication on the subject, which cannot fail to be one of urgent anxiety, both to Mr. Higinbothom and to Mr. Brown, I feel that, from a sense of what is due to both parties by me, it is most necessary that the facts and truth of the case should be ascertained, and set at rest beyond the possibility of future doubt, or controversy; and, when I stated in my letter of the 2d instant, that Mr. Brown desired to have an opportunity of proving his averments, in point of fact, I ought to have stated that Mr. Brown's meaning was that such an ascertainment of facts should take place *on the ground* (where alone such facts can be ascertained) by such means as he should take, to be judged of by, and in the presence of, an impartial and competent tribunal, and also in the presence of Mr. Higinbothom, but Mr. Brown not to be interfered with as to the *mode* of proof which he should adopt regarding his own statements. Mr. Brown's meaning was that he should be permitted to take his own way of proving his own assertions, in the presence of those who were to judge the result, it being clear that no other proceeding could be just or satisfactory, and that no proof, conducted in his absence, can be accepted by him as just towards him, or decisive in its result. No proceeding, not in his presence, can be decisive of the truth, or error, of his assertions. At present, Mr. Brown's statements are mere assertions. He desires to be permitted to prove that they are facts, and, unless so permitted, it is clear that, according to the ordinary principles of the administration of justice, no fair judgment can be formed of the correctness, or incorrectness, of his averments.

Mr. Higinbothom has taken his own means of supporting his own statements, as regards matters of fact, by proceedings *on the ground*, where alone the controversy can be decided; but those proceedings have been taken *in the absence of Mr. Brown*. It is only fair, and indeed indispensable to justice, that Mr. Brown should be allowed to verify his own statements, *also on the ground*, and, by this proceeding alone, can the parties be placed respectively on an equality; but Mr. Brown *desires that Mr. Higinbothom should be present*, which Mr. Brown was not, in the proceedings of Mr. Higinbothom. It is clear that on the ground only can it be decided, in the presence of competent judges, whether there are, in the various inclosures of the forest, *a greater or smaller average number of trees on the acres of the several inclosures*, which is the main fact at issue.

It is, in order at the present moment to submit the necessity, in justice to Mr. Brown, that this opportunity should be afforded to him, that I reluctantly address this communication to your Lordships, and I feel certain that the consideration of simple justice will lead your Lordships to approve the views I have now presumed to lay before you.

It is right that I should add, that Mr. Brown is in ignorance of the contents of Mr. Higinbothom's Report, of the 28th of February. I have not transmitted to him a copy of that Report, because Mr. Wilson's letter, of the 7th instant, states that your Lordships must consider the correspondence of the parties as closed, and because Mr. Brown has no desire to continue a controversial discussion, which is of no value whatever, while the fundamental facts of the case remain in dispute, and while, instead of prolonged and unavailing controversy, he desires to be permitted to prove and verify the averments, in respect of matters of fact, (not of opinion, or speculation), which he has already put forward, and on which the whole controversy fundamentally rests.

In conclusion, I have to request that your Lordships may be pleased to give instructions that this letter may be added to the papers now printing by Order of the House of Commons, in order to complete, to the latest period, the correspondence relating to Alice Holt Forest.

I have, &c.
(signed) *T. F. Kennedy.*

The Right Hon. the
Lords Commissioners of Her Majesty's Treasury.

No. 31.

Treasury Chambers, 4 April, 1854.

Sir,

I AM directed by the Lords Commissioners of Her Majesty's Treasury, to state, with reference to your further communication, dated the 23d instant, that you will have learnt by the Minute of this Board of the 31st ultimo, the course of proceeding decided upon by my Lords, for ascertaining the facts on which the controversy, respecting the management of Alice Holt and Woolmer Forests, depends.

You will observe that, by the arrangement determined upon, it will be within the scope of the instructions to the referees, selected for the inquiry, that they should refer to Mr. Brown for information as to the grounds upon which he relies for proofs of his averments, in the event of any doubt, or difficulty, arising upon his written Reports.

With reference, however, to the requirement proposed by you, on behalf of Mr. Brown, that he should "not be interfered with as to the *mode* of proof which he should adopt "regarding his own statement," my Lords feel it right to observe that the mode of proof adopted by Mr. Brown, on the occasion of his last visit, forms a principal ground of the countercharge raised against him by Mr. Higinbothom, and that it will obviously be the duty of the referees to decide upon the course to be followed, for the purpose of testing the accuracy of statements made by both parties.

Nor

Alice Holt and Woolmer Forests.

Mr. Brown's Reports.

Nor are my Lords able to recognise the force of the reasons urged by you for the course which you wish to be pursued, in regard to Mr. Brown. For, how stands the facts of the case? Mr. Brown made a Report upon the forests in question, impugning the past management, based upon an extensive statement of facts. In reply to this, Mr. Higinbothom called in question the accuracy of the facts relied on by Mr. Brown. This Report was furnished to Mr. Brown, who re-visited the forests, and, with such assistance as he desired, made a fresh survey and examination, and, in a very able and clear Report, set out the results in great detail, fully adhering to his former statements, and charging Mr. Higinbothom with a want of veracity, and with a distortion and suppression of facts. Mr. Higinbothom, in his turn, was allowed his own time to reply to the second Report of Mr. Brown, which he did in great detail, and each party having thus committed his whole case to writing, my Lords are clearly of opinion, that any personal intercourse between them and the referees, further than may be found needful to explain any part of the Reports, should the referees require it, would only tend to embarrass the proceedings.

It is clear, that any course permitted to Mr. Brown, could not be denied to Mr. Higinbothom, and that, if your proposal were adopted, it would lead, in all probability, to great personal altercation and dispute, inconsistent with a dispassionate decision as to the simple facts at issue.

My Lords are, therefore, of opinion that the terms of the Minute, as it stands, should be strictly adhered to, and they desire that both Mr Brown and Mr. Higinbothom should be instructed not to be present in the woods, while the investigation is going on, unless they may be sent for by the referees.

I am, &c.

The Right Hon. T. F. Kennedy. (signed) *C. E. Trevelyan.*

No. 32.

COPY of a Treasury Minute, dated 31st March, 1854.

My Lords have under their consideration the whole of the correspondence which has arisen from the Reports of Mr. Brown, under the direction of the Commissioner in charge of the Royal Forests, on the subject of the condition and management of those forests.

The first series of these Reports, respecting New Forest and Dean Forest, having been referred to Mr. John Clutton, by order of this Board, that gentleman entered into a vindication of the past management by the deputy-surveyors, which had been, in some important respects, strongly condemned by Mr. Brown, and also controverted many of the principles advocated in the Reports. This led to further Reports from Mr. Brown, in reply to Mr. Clutton's observations; and the correspondence respecting Dean Forest, has been closed by a statement by Mr. Machen, the late deputy-surveyor, impugning the correctness of Mr. Brown's statements on the subject of the management of that forest, and defending himself against imputations which he considered the Reports of Mr. Brown to convey against him. In the meantime, Sir James Campbell, the deputy-surveyor of Bere and Parkhurst Forests, and Mr. Higinbothom, the deputy-surveyor of Alice Holt and Woolmer Forests, when the Reports of Mr. Brown relating to the forests under their charge were communicated to them, raised strong objections, not only to the principles of management advocated by him, but also to the statements of facts upon which he relied, in support of his views.

Lastly, Mr. Lipscomb, the deputy-surveyor of Delamere Forest, presented a memorial to this Board, appealing against his removal from his office by Mr. Kennedy, on the ground of incompetency; and Mr. Kennedy, to whom the memorial was referred, having reported to this Board the grounds of his decision, the case awaits the directions of their Lordships.

The controversies raised by this correspondence, relate to grave matters both as to the theory and the detail of forest-management, all of which it will be necessary to have reviewed and considered by competent persons, before any final decision is taken upon the more intricate parts of the subject.

In the case, however, of the controversy which has arisen between Mr. Higinbothom and Mr. Brown, and also between the former gentleman and Mr. Kennedy, on the subject of Mr. Brown's Reports on Alice Holt and Woolmer Forests, the questions at issue are reduced to matters of simple fact, but which, from the spirit in which the discussion has been conducted, have assumed a character involving the veracity, integrity, and honour of the parties, and rendering it desirable, on that account, that the matter should be brought to a conclusion with the least possible delay.

The correspondence on this subject commences with Mr. Brown's Report, which, though made in March 1853, was not communicated to Mr. Higinbothom until the 20th October. Secondly, of Mr. Higinbothom's remarks, dated the 29th December, in which he founds a defence

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Mr. Brown's Reports.

defence against Mr. Brown's imputations, by alleging numerous errors in the Report, chiefly in respect to the number of trees to the acre in certain inclosures, the average diameter of those trees, at certain given ages, and the extent of drainage in the forests. Thirdly, the reply of Mr. Brown, dated the 10th February, written after re-visiting Alice Holt Forest, in the month of January, in which he re-asserts his own statements with greater confidence than before, and denies the truth of those of Mr. Higinbothom, and in which Mr. Brown makes grave charges against the veracity and character of Mr. Higinbothom. Fourthly, Mr. Higinbothom's rejoinder, dated the 28th February, to Mr. Brown's last Report, in which he steadfastly adheres, in every detail, to his own statements; in support of which he adduces corroborative evidence, and again denies the accuracy of those of Mr. Brown. Fifthly, a letter from Mr. Kennedy, dated the 26th January, and written with reference to Mr. Higinbothom's first Report, in which he offers, from sources altogether independent of Mr. Brown, observations and suggestions in respect to the conduct of Mr. Higinbothom, in framing his Reports, which, while they might, in some measure, account for the discrepancies between him and Mr. Brown, involve grave imputations upon the veracity and integrity of Mr. Higinbothom. Sixthly, Mr. Higinbothom's reply to that letter, in which he deals with it point by point, and denies the facts upon which the charges are founded. Seventhly, Mr. Kennedy's letter, of the 18th February, forwarding the last-mentioned Reports from Mr. Higinbothom, in which he maintains his former opinion, that the Report of that gentleman, of the 29th December, was eminently calculated to deceive and mislead him, or any one who should peruse it.

In instituting an inquiry into this matter, it will be necessary to consider and report separately upon the correspondence, as it affects Mr. Brown and Mr. Higinbothom, and upon that which affects Mr. Kennedy and Mr. Higinbothom; for, though the material facts are the same in both cases, yet, as Mr. Kennedy, at the commencement of his letter, states, that he founds his charges on matters of fact officially known to him, and irrespective of all statements that might be made by Mr. Brown, it becomes necessary that they should form the subject of distinct investigation.

My Lords are of opinion, that the questions at issue, in this case, can only be brought to a satisfactory conclusion by a careful examination on the spot, conducted by professional gentlemen, altogether unconnected with the parties concerned in the controversy. With this view, their Lordships have selected Mr. Mathews, of Edgbaston House, Birmingham, Mr. Murton, of Tunstall, Sittingbourne, and Mr. Menzies, the deputy-surveyor of Windsor Park and Forest. The two first-named gentlemen are persons whose standing in their profession affords an ample guarantee for their independence, impartiality, and judgment; and my Lords have associated Mr. Menzies with them, because, even in the investigation of facts, regarding the age and condition of the trees in Alice Holt Forest, questions may arise, in which experience, connected with the management of a Royal Forest, so far as it may depend on the laws affecting that description of property, and the objects for which the Crown-plantations are maintained, may be useful; while, on the other hand, Mr. Menzies is acquainted with the system of management of oak-plantations pursued in Scotland, in which country he was brought up, and he is, from his position, quite independent of the controversies which affect the officers of the other forests.

My Lords are pleased to direct that the correspondence relating to Alice Holt and Woolmer Forests be transmitted to these gentlemen, and that, after they have made themselves fully acquainted with the several matters of fact in dispute between Mr. Higinbothom and Mr. Brown, and also with those upon which the charge brought against the former gentleman by Mr. Kennedy depends, they be requested to proceed to Alice Holt and Woolmer Forests, for the purpose of conducting a detailed examination, on the spot, into the several questions of fact upon which the parties have made conflicting statements.

As regards the dispute between Mr. Higinbothom and Mr. Brown, these questions are confined to the number of trees of a certain age standing upon an acre, the diameter of those trees, at certain specified ages, and the extent and description of the drains, existing in certain localities. The referees, in reporting upon these questions, will avoid, as far as possible, all matters of mere opinion; but, in reporting upon the extent of drainage, some deviation from this rule will be required, as it will be necessary for them to report whether the drains are effectual for the objects required, or whether they are, as stated by Mr. Brown, "badly laid on, shallow, without sufficient fall, and consequently mere receptacles "for retaining stagnant water." Some judgment must also be formed regarding the indications, referred to by Mr. Brown, of want of drainage, as shown by the growth of rushes, &c., and the explanations afforded by Mr. Higinbothom, on this subject.

In respect of the age of the trees, the evidence of the woodmen may, in general, be taken; but my Lords apprehend that it will be necessary for the referees to exercise their own judgment, upon the allegation of Mr. Brown, with regard to one of the inclosures, in which the trees are represented to be stunted and bark-bound, though, as that allegation is controverted by Mr. Higinbothom, by a reference to alleged facts, the matter may probably be reduced, in great measure, to one of proof. Mr. Higinbothom, in refutation of the charges brought against him by Mr. Brown, in regard to overthinning, refers to plantations in a similar condition, which are adverted to, in favourable terms, in Mr. Brown's Reports. Here a comparison between the plantations in question will be necessary; but my Lords conceive

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that this point of issue, may also be reduced to one of fact, by ascertaining the relative ages of the trees, the average number growing on the acre, and the average diameter, in this case.

Mr. Brown's Reports.

My Lords propose that Mr. Higinbothom and Mr. Brown should both be within reach while the referees are making their investigation, but that they should not, in any way, interfere, either by their presence or observations, except so far and so often as the referees may have occasion to require from one, or both, any explanation upon points which may not be sufficiently explicit upon the face of the Reports; but those Reports are so full and explicit in themselves, that my Lords hope the referees will not have occasion to resort to personal intercourse with Mr. Brown and Mr. Higinbothom; or if they do, that it will be strictly confined to such points, if any should arise, on which explanation may be needed. My Lords take this view, only in order that the subject should not be embroiled with fresh matter of dispute during the reference.

The referees will have the assistance of the officers of the forest, to aid them in distinguishing the different localities in the forest, referred to in the papers; and it will be their first duty to see that they already understand this part of the subject, before proceeding to their other duties, and to take whatever means they may find it needful, in order to do so.

With regard to the investigation of the charge made by Mr. Kennedy against Mr. Higinbothom, it will be the duty of the referees to ascertain whether the statements of the latter gentleman, regarding the number of trees standing on the acre, are affected by thinnings which were made in the interval between the first inspection of Mr. Brown and his own Report, of 29th December 1853, and whether, or not, there has been any culpable suppression of facts, on his part, in this matter. They will observe, in this part of the subject that, after the explanation afforded by Mr. Higinbothom, Mr. Kennedy, in his letter of the 18th February, adverts to 239 acres of "Great Lodge Inclosure," which were not referred to by Mr. Higinbothom, and attributes the diminution in the number of trees reported by Mr. Brown, on his second visit to the forest, to the thinning which had, in the interval, taken place. A question is also raised by Mr. Kennedy, regarding the thinning, admitted to have taken place in a certain piece, consisting of eight acres, in the remaining portion of this inclosure. Mr. Kennedy observes that he has taken the case of this inclosure, in illustration of the remainder, and my Lords have thought it right, therefore, to call the attention of the referees to the statement, but they are unable to collect how far the explanations of Mr. Higinbothom, regarding the thinnings in other parts of the forest, are questioned; and, in justice to both parties, they can only suggest that the extent of the thinnings, during the period in question, in each inclosure, should be ascertained, and that the effect of those thinnings, as bearing upon the statements of Mr. Higinbothom, should be clearly brought out.

The referees will report the result of their investigation to this Board, and, in case they should differ on any point, they will be at liberty to make separate representations to their Lordships on the subject.

Let letters of instructions be written to Mr. Mathews, Mr. Murton, and Mr. Menzies, in the terms of this Minute.

Write to Mr. Gore, that my Lords require the aid of Mr. Menzies, on a special service connected with Alice Holt and Woolmer Forests, and request that he will direct that officer to attend to such instructions as he may receive from their Lordships on the subject.

Transmit copy of this Minute to Mr. Kennedy, for his information and guidance, and request that he will make the necessary intimation of their Lordships' directions to Mr. Higinbothom and Mr. Brown; and further, that he will desire the officers of the forests to afford the referees every facility in the investigation entrusted to them.

ROYAL FORESTS.

REVISED ESTIMATES.

(FOUR MINOR FORESTS.)

NO.	DATE.	——	SUBJECT.	PAGE.
	1853:			
1	7 Nov. -	To J. Brown - -	To revise his several Estimates relating to the Forests, in consequence of the rise in price of Labour, and to report on the progress made in carrying into effect the Operations which are authorized in Chopwell Woods - - - - - - - - - -	275
	1854:			
2	1 Feb. -	- - Report from Mr. Brown.	With revised Estimates relating to Delamere, Alice Holt, Woolmer, Bere, and Parkhurst Forests, for the year ending 31st March, 1855 - - - -	275

No. 1.

Sir, Office of Woods, &c., 7 November, 1853.

I HAVE to request that, as soon as your convenience may permit, you will revise your reports relative to Delamere, Alice Holt, Woolmer, Bere, and Parkhurst Forests, so far as relates to the several estimates and calculations embodied in them, as affected by the rise in price of labour and of produce, since the dates of these reports respectively, stating separately the alterations in the several estimates and calculations which it may be necessary to make, with a view to practical results in the year to follow the 31st of March next. This may be done, in the form of a very short statement, applicable to each forest, all to be comprehended in one report, from which extracts may be made, in order to be sent to each deputy-surveyor, if it shall be found proper so to do. Such a supplementary statement, applicable to each case, would render the existing report strictly applicable to the altered circumstances, and anticipate any difficulties which might otherwise arise.

I have also to state that, in conformity with the wishes expressed by the Treasury, when the altered arrangements were made for Chopwell Woods, that I should wish, at no distant time, to receive from you a report on the progress made in carrying into effect the operations which were authorized; and, in treating on this subject, it will be necessary to bring into view, in an especial manner, the effects likely to result from the rise in the cost of labour, and in the prices of produce.

This report had best be made at or about the close of the year, having reference to the progress of the work, and of the sales effected. I am in hopes that, while the advance in the rate of wages must increase expenditure beyond estimates, yet that the cotemporaneous rise in the price of produce may compensate, at least, for the increased charge which is unavoidable; and that this state of affairs may be found to be applicable to all the forests and woodlands named.

I am, &c.,

Mr. James Brown. (signed) *T. F. Kennedy.*

P. S. The report on Chopwell Woods, should be a separate document from the other forests.

No. 2.

Sir, Arniston, 1 February, 1854.

I HAVE had the honour to receive your letter of the 7th November, 1853, requesting that I should, as soon as convenient, revise my reports in reference to Delamere, Alice Holt, Woolmer, Bere, and Parkhurst Forests, so far as relates to the several estimates and calculations embodied in them, as affected by the rise in price of labour and of produce, since the dates of these reports respectively, and that I should state, separately, the alterations in the several estimates and calculations which it may be necessary to make with a view to the actual results in the year to follow the 31st March next. In reply, I have to report that, in this part of the country, the value of labour has risen one-fifth, compared with what it was when I wrote these reports, and that the rise in the price of similar produce, such as is to dispose

Royal Forests. Revised Estimates.

of, in the forests above named, is pretty nearly one-tenth; that is to say, the labour which was estimated to cost 10*s.* when I wrote these reports, would now require to be estimated at 12*s.*, and the quantity of timber-produce, which was then valued at 10*s.*, is now worth 11*s.* In revising the estimates in my reports on the several forests named, I propose, therefore, to frame them on these proportions of rise in price, respectively.

With regard to bark, I may remark that on this class of produce there was last year (1853), in this part of the country, and indeed generally, a rise of 10*s.* per ton on the prices of the previous year; this proportion I propose should be added to the price of the bark in my estimates of the produce in the four small forests in Hampshire, because at the time that I valued the bark in respect to them, in the spring of 1853, it was generally anticipated that this class of produce would sell at a comparatively low rate, although the result turned out the contrary. I valued the bark in these forests at 70*s.* only, but I now propose that it should be 80 *s.* per ton. On the item of bark, in my estimate for Delamere Forest, I do not propose there should be any rise made, because, when I made up my report on that forest, in the spring of 1852, it was generally anticipated that bark would sell at a fair price; and, with this view, I put it down at 90 *s.* per ton.

My revised estimates, as to the income and expenditure of the five forests already named, are as follow:

DELAMERE FOREST.

ESTIMATE of General Receipt and Expenditure for the Year, from 1st April, 1854, to the 31st March, 1855.

RECEIPT.

	£.	*s.*	*d.*
Income from sale of larch, Scots-pine, alder, birch and oak-timber	3,300	2	2
Income from sale of oak-bark, 156 tons, at 90*s.*	702	–	–
£.	4,002	2	2

EXPENDITURE.

	£. *s.* *d.*	£. *s.* *d.*
Salaries and Allowances:		
Deputy-Surveyor	228 17 5	
Foreman	54 12 –	
Four woodmen, at 15*s.* each per week	156 –	
		439 9 5
Labour:		
Cleansing		12 – –
Planting; Stock to be purchased		

	Number of Plants.	Age in Years.	Value for 1,000. £. *s.* *d.*		
Scots-pine	300,000	2	– 12 –		180 – –
Labour:					
Preparing ground, for planting				60 – –	
Expenses for planting pines				60 – –	
Clearing plants of weeds				24 – –	
					144 – –
Labour; General Management and Repairs:					
Repairs of lodges, &c.				8 2 –	
Repairs of fences, &c.				120 – –	
Repairs of roads, &c.				120 – –	
Repairs of drains and ditches				60 – –	
General labourer at the lodge, 14*s.* per week				36 8 –	
General carter				39 – –	
Forest horse-keep				30 – –	
Tradesmen's bills				24 – –	
					437 10 –
Carried forward					1,212 19 5

	£.	s.	d.	£.	s.	d.
Brought forward				1,212	19	5
Labour; Preparation of Produce for Sale:						
Felling, carrying, and lotting	720	–	–			
Stripping, setting up, drying, tying and weighing 156 tons of bark, at 30 *s.* per ton	234	–				
Assistance in loading timber	74	17	7			
Assistance in loading bark	12	–	–			
				1,040	17	7
Expenses attendant on sales of produce				15	–	–
Rates, Taxes &c.:						
Parochial rates	10	–	–			
Annual contribution to the Forest School	25	–	–			
				35	–	–
			£.	2,303	17	–

	£.	s.	d.
Estimated Income	4,002	2	2
Estimated Expenditure	2,303	17	–
Estimated Net Income £.	1,698	5	2

ALICE HOLT FOREST.

ESTIMATE of General Receipt and Expenditure for the Year, from the 1st April, 1854, to the 31st March, 1855.

RECEIPT.

	£.	s.	d.
Income from sales of wood	1,562	–	–
Income from sale of oak-bark, 280 tons, at 80 *s.*	1,120	–	–
£.	2,682	–	–

EXPENDITURE.

	£.	s.	d.	£.	s.	d.
Salaries and Allowances:						
Deputy-surveyor, 150 *l.*; horse's keep, 30 *l.*	180	–	–			
Foreman	54	12	–			
Woodmen, two at 15 *s.* per week each	78	–	–			
				312	12	–
Planting:						
Fifty-three acres, being the one-fifth part of the land recommended to be cleared and replanted, at 9 *l.* 12 *s.* per acre				508	16	–
Labour, Maintenance, &c.:						
Walls, fences, gates	48	–	–			
Roads, rides and drives	36	–	–			
Drains and ditches	120	–	–			
Cartage	48	–	–			
Labourer at the lodge	36	8	–			
Repairs of lodges	24	–	–			
Tradesmen's bills	24	–	–			
Keep of forest-horse	30	–				
				366	8	–
Carried forward				1,187	16	–

Royal Forests.

Revised Estimates.

	£.	s.	d.	£.	s.	d.
Brought forward	-	-	-	1,187	16	-
Labour, Preparation of Produce for Sale:						
Felling, carrying, lotting, &c. &c.	360	-	-			
Stripping, setting up, drying, and weighing, 280 tons of bark, at 24 *s.* per ton	336	-	-			
Assistance in loading timber	36	-	-			
Assistance in loading bark	24	-	-			
				756	-	-
Expenses attendant on sales of produce	-	-	-	24	-	-
Contingent expenses of forest-officers	-	-	-	30	-	-
Rates, taxes, &c.	-	-	-	15	-	-
Allowance to an aged labourer	-	-	-	18	5	-
			£.	2,031	1	-

	£.	s.	d.
Estimated Income	2,682	-	-
Estimated Expenditure	2,031	1	-
Estimated Net Income £.	650	19	-

WOOLMER FOREST.

ESTIMATE of General Receipt and Expenditure for the Year, from 1st April, 1854, to 31st March, 1855.

RECEIPTS.

	£.	s.	d.
Income from sales of oak and pine-wood	1,223	15	-
Income from oak-bark, 25 tons, at 80 *s.* per ton	100	-	-
£.	1,323	15	-

EXPENDITURE.

	£.	s.	d.	£.	s.	d.
Salaries and Allowances:						
Deputy-surveyor	50	-	-			
Horse-keep	30	-	-			
Foreman	10	8	-			
Horse-keep	30	-	-			
Woodmen, three at 15 *s.* per week each	117	-	-			
				237	8	-
Labour, Maintenance, &c.:						
Walls, fences, and gates	18	-	-			
Roads, rides, and drives	18	-	-			
Repairs of lodges	12	-	-			
Drains and ditches	36	-	-			
Tradesmen's bills	6	-	-			
				90	-	-
Labour; Preparation of Produce for Sale:						
Felling, carrying and lotting	336	-	-			
Stripping, setting up, and weighing, 25 tons of bark, at 24 *s.* per ton	30	-	-			
Assistance in loading produce	12	-	-			
				378	-	-
Contingent expenses of forest-officers	-	-	-	12	-	-
Expenses attendant on sales of produce	-	-	-	12	-	-
Rates and taxes	-	-	-	5	-	-
			£.	734	8	-

	£.	s.	d.
Estimated Income	1,323	15	-
Estimated Expenditure	734	8	-
Estimated Net Income £.	589	7	-

BERE FOREST.

ESTIMATE of General Receipt and Expenditure for the Year, from 1st April, 1854, to 31st March, 1855.

RECEIPT.

	£.	s.	d.
Income from sales of timber and small wood	1,826	–	–
Income from sales of oak-bark, 343 tons, at 80 *s.*	1,372	–	–
£.	3,198	–	–

EXPENDITURE.

	£.	s.	d.	£.	s.	d.
Salaries and Allowances:						
Deputy-surveyor	150	–	–			
Allowances for horse-keep	30	–	–			
Foreman	54	15	–			
Woodmen (two in number), at 15 *s.* per week	78	–	–			
				312	15	–
Labour, Maintenance, &c.:						
Walls, fences, and gates	30	–	–			
Roads, rides, and drives	24	–	–			
Drains and ditches	60	–	–			
Cartage	36	–	–			
Labourer at the lodge, at 14 *s.* per week	36	8	–			
Repairs of lodges	24	–	–			
Tradesmen's bills	24	–	–			
Keep of forest-horse	30	–	–			
				264	8	–
Planting:						
Ten acres, being the one-fifth of the land recommended to be drained, and replanted with Scots-pines, at 4 *l.* 10 *s.* per acre	45	–	–			
Twenty-eight acres, to be drained and replanted with oak and larch, at 6 *l.* 13 *s.*	186	14	–			
				231	14	–
Labour; Preparation of Produce for Sale:						
Felling, carrying, lotting, &c. &c.	432	–	–			
Stripping, setting up, drying, and weighing, 343 tons of bark, at 24 *s.* per ton	411	12	–			
Assistance in loading produce	72	–	–			
				915	12	–
Expenses attendant on sales of produce				24	–	–
Contingent expenses of forest-officers				20	–	–
Rates, taxes, &c.				4	–	–
£.				1,772	9	–

	£.	s.	d.
Estimated Income	3,198	–	–
Estimated Expenditure	1,772	9	–
Estimated Net Income £.	1,425	11	–

Royal Forests.

Revised Estimates.

PARKHURST FOREST.

ESTIMATE of General Receipt and Expenditure for the Year, from 1st April, 1854, to the 31st March, 1855.

RECEIPT.

	£.	s.	d.
Income from sales of wood	782	–	–
Income from sales of bark, 140 tons, at 80 *s.* per ton	560	–	–
£.	1,342	–	–

EXPENDITURE.

	£.	s.	d.	£.	s.	d.
Salaries:						
Deputy-surveyor	50	–	–			
Foreman	52	–	–			
				102	–	–
Planting:						
Sixty acres, being the one-fifth of the land recommended to be cleared and replanted, at 4*l.* 10*s.* per acre				270	–	–
Labour, Maintenance, &c.:						
Walls, fences, and gates	9	12	–			
Roads, rides, and drives	12	–	–			
Drains and ditches	60	–	–			
Cartage	30	–	–			
Repairs of lodge	2	8	–			
				114	–	–
Labour; Preparation of Produce for Sale:						
	£.	s.	d.			
Felling, carrying, and lotting	252	–	–			
Stripping, setting up, drying, and weighing, 140 tons of bark, at 30 *s.* per ton	210	–	–			
Assistance in loading timber	18	–	–			
Ditto in loading bark	12	–	–			
				492	–	–
Implements and general ironmongery				12	–	–
Provender for forest-horse				15	–	–
Contingent expenses of forest-officers				20	–	–
£.				1,025	–	–

Estimated Income	1,342	–	–
Estimated Expenditure	1,025	–	–
Estimated Net Income £.	317	–	–

I have, &c.

(signed) *James Brown.*

The Right Hon. T. F. Kennedy.

LSE. LONDIN. UNIV.

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